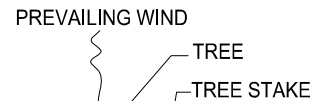


LANDSCAPE STANDARD DETAILS (LSD) FOR CITY PROJECTS AND RIGHT-OF-WAY

Table of Contents

<u>DETAIL NO.</u>	<u>TITLE</u>
LSD-1	TREE PLANTING AND STAKING
LSD-2	TREE PLANTING WITH TREE GRATE
LSD-3	SHRUB AND GROUNDCOVER PLANTING
LSD-4	SHRUB AND GROUNDCOVER LAYOUT
LSD-5	STREET TREE CLEARANCES
LSD-6	TREE CLEARANCES
LSD-7	MEDIAN COBBLE PAVING
LSD-8	MAINTENANCE BAND
LSD-9	TREE PROTECTION FENCING
LSD-10	TEMPORARY TRUNK WRAP
LSD-11	<i>Not used</i>
LSD-12	TREE AND SHRUB PLANTING ON SLOPE
LSD-13	TREE PLANTING GUIDE (LIST)
LSD-14	IRRIGATION MATERIALS
LSD-15	IRRIGATION CONTROLLER CABINET w/ CALSENSE CONTROLLER
LSD-16	BACKFLOW PREVENTOR UNIT
LSD-17	BACKFLOW PREVENTOR UNIT CAGE
LSD-18	IRRIGATION TRENCH
LSD-19	QUICK COUPLING VALVE IN BOX
LSD-20	IRRIGATION WIRE SPLICE
LSD-21	IRRIGATION ROTOR OR POP-UP
LSD-22	IRRIGATION GATE VALVE
LSD-23	REMOTE CONTROL VALVE W/ GATE VALVE
LSD-24	MASTER VALVE AND FLOW SENSOR
LSD-25	PRESSURE REDUCTION VALVE
LSD-26	IRRIGATION WYE STRAINER
LSD-27	LANDMARK TREE PLAQUE
LSD-28	LANDMARK TREE RAILING
LSD-29	STORMWATER TREETWELL (2 pages)
LSD-30	STORMWATER PLANTER (4 pages)
LSD-31	STORMWATER TRASH CAPTURE INLET (3 pages)

STAKING AND TYING TREE:

WONDER TREE TIE
Ph.(800)910-2810

WONDER TREE-TIE MODEL# W14-46, W24-84 OR APPROVED EQUAL. SECURE EXPOSED WIRE ENDS TO OUTSIDE OF STAKE - POUND WIRE ENDS INTO STAKE. ALLOW 3 INCHES OF MOVEMENT OF TREE IN ALL DIRECTIONS.

LODGE POLE PINE TREE STAKES (DO NOT PIERCE ROOT BALL):
2 INCH DIA. - 24" BOX & UNDER,
3 INCH DIA. - 36" BOX & UP

MULCH AND WATER BASIN:

BARK MULCH: 3 INCH DEPTH, KEEP CLEAR FROM TRUNK OF TREE

FINISH GRADE

4 INCH TALL EARTH BERM FOR WATER BASIN:

3' DIA. FOR 15-GAL.
4' DIA. = 24" BOX
5' DIA. = 36" BOX & LARGER

PLANTING HOLE:

BACK FILL MIX (TOP 12 INCHES ONLY): 70% PULVERIZED NATIVE SOIL, 30% COMPOST

FERTILIZER: BEST PAKS (21 GRAM, 20-10-5): 15 GAL. - 9 PAKS, 24" BOX - 25 PAKS, 36" BOX - 30 PAKS

PLANTING HOLE, PULVERIZED NATIVE SOIL BELOW 12-INCHES FROM FINISH GRADE; SCARIFY WALLS

SET ROOT BALL FIRMLY ON UNDISTURBED OR WATER SETTLED NATIVE SOIL. TOP OF ROOT BALL 1 INCH ABOVE FINISH GRADE.

NOTES:

- KEEP TURF AND PLANTS OUTSIDE CIRCULAR EARTH BERM / WATER BASIN.
- STREET TREES (TREES WITHIN CITY RIGHT-OF-WAY) SHALL BE:

15 GALLON SIZE FOR SINGLE FAMILY RESIDENCE PERMIT REPLACEMENT TREE
24 INCH BOX SIZE FOR ALL OTHER TREES

TOP OF STAKE
6 INCHES BELOW HEAD

**IRRIGATION AND TUBE
NOT REQUIRED FOR
PERMITTED
REPLACEMENT TREES**

DEEP WATERING
TUBE: 4 INCH PERF.
PVC PIPE WITH OPEN
GRATE CAP; FILL WITH
DRAIN ROCK

1/2 GPM IRRIGATION
BUBBLER, OFFSET
FROM TREE AS
DIMENSIONED WHEN
REQUIRED

STAKE HEIGHT: AS REQUIRED FOR TREE HEIGHT

STAKE DEPTH: 3 FEET

DEPTH OF ROOT BALL
+6" (15 GAL)
+12" (24" & 36")

PLANT HOLE DIAMETERS:

15 GAL: 3'-6"
24" BOX: 4'-6"
36" BOX: 6'-0"

WATERING BY HAND:

WATER TWICE WEEKLY DURING THE GROWING SEASON. APPLY 7 1/2 TO 10 GALLONS DURING EACH WATERING. FILL WATER BASIN SLOWLY TO ALLOW WATER TO SOAK INTO SOIL.

CITY OF FREMONT

STANDARD DETAILS

CITY STANDARD

TREE PLANTING & STAKING

DATE APPROVED BY CITY COUNCIL
12/13/11

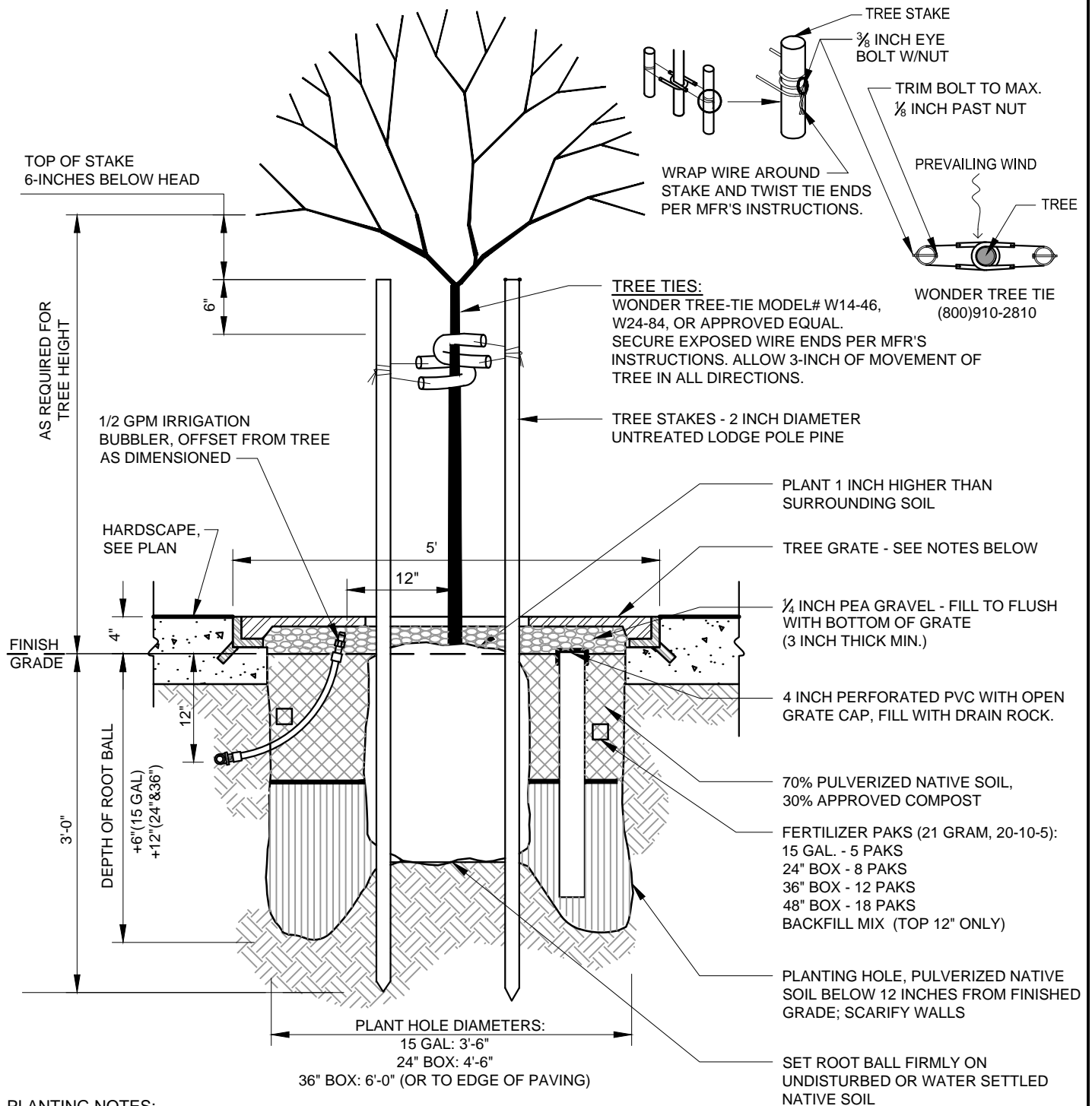
RESOLUTION NO. 2006-31

CITY ENGINEER

Ham Hughes

	Council Revision	12/13/11
	General Revision	02/08/10
APPR	REVISED	DATE
REVISIONS		

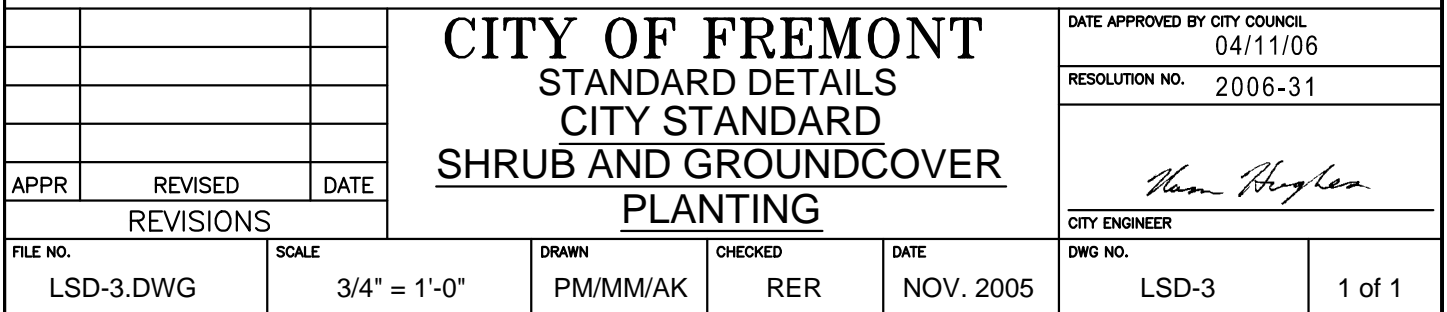
FILE NO.	SCALE	DRAWN	CHECKED	DATE	DWG NO.	
LSD-1.DWG	3/4" = 1'-0"	PM/MM	RER	DEC. 2011	LSD - 1	1 of 1





PLANTING NOTES:

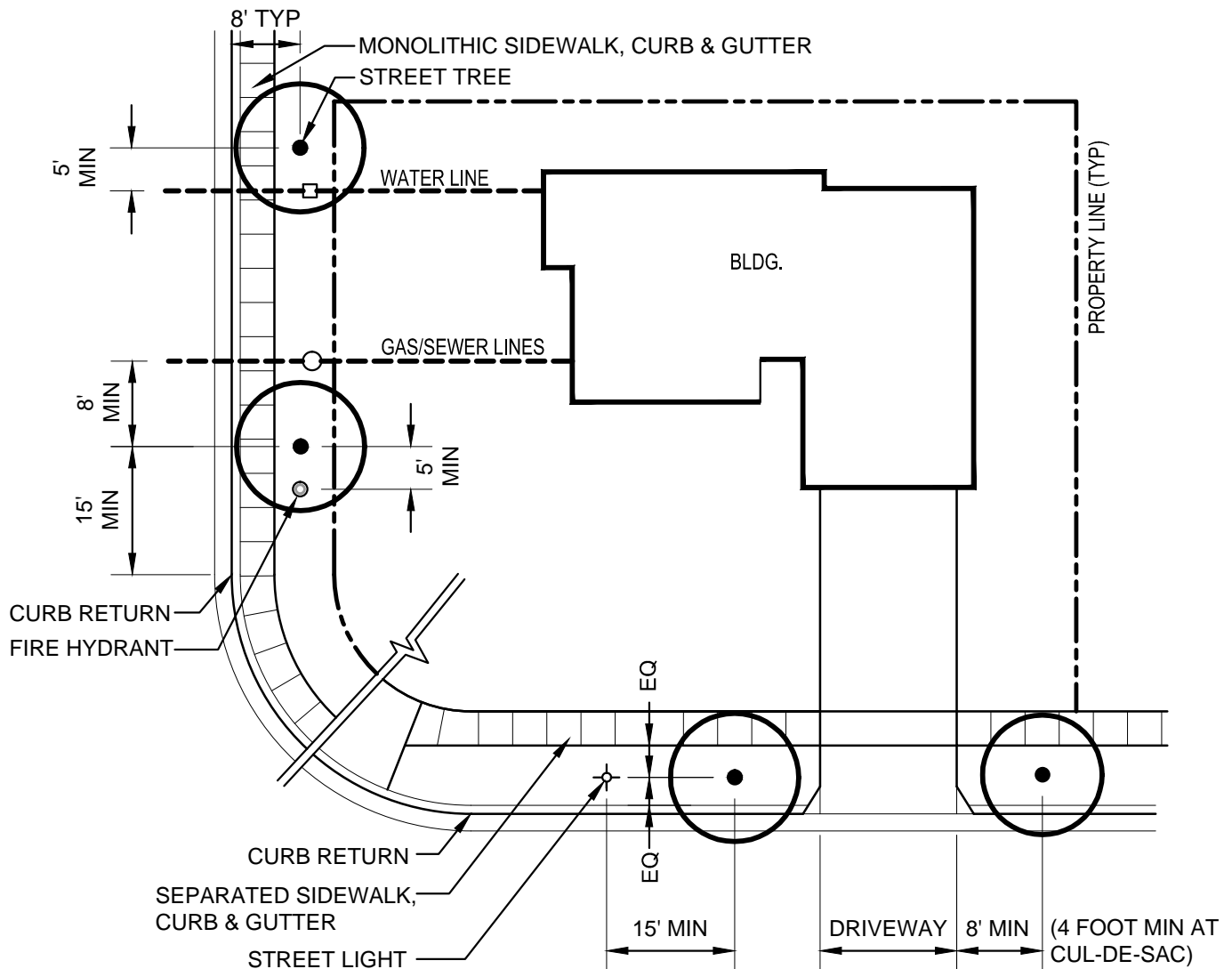
1. TREE GRATE TO BE FIVE (5) FOOT SQUARE,
MAKE AND MODEL TO BE: NEENAH, R-8707, OR APPROVED EQUAL.
2. TREE GRATE TO BE UNFINISHED.
3. REFER TO DETAIL LSD-1 FOR MORE INFORMATION.
4. STREET TREES (TREES WITHIN RIGHT-OF-WAY) SHALL BE 24 INCH BOX SIZE, MINIMUM.

<div> <div>APPR</div> <div>REVISED</div> <div>DATE</div> </div> <div>REVISIONS</div>			<div> <div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD TREE PLANTING</div> <div>WITH TREE GRATE</div> </div>			DATE APPROVED BY CITY COUNCIL 04/11/06	
						RESOLUTION NO. 2006-31	
						CITY ENGINEER	
FILE NO.	SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-2.DWG	3/4" = 1'-0"	PM/MM	RER	NOV. 2005	LSD-2	1 of 1	




			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>SHRUB AND GROUND COVER</div> <div>PLANTING LAYOUT</div>	DATE APPROVED BY CITY COUNCIL 12/13/11			
				RESOLUTION NO. 2006-31			
	Council Revision	12/13/11		<div></div> <div>CITY ENGINEER</div>			
	General Revision	03/17/11					
APPR	REVISED	DATE					
REVISIONS							
FILE NO. LSD-4.DWG		SCALE 1" = 1'-0"	DRAWN PM/MM	CHECKED RER	DATE DEC. 2011	DWG NO. LSD-4	1 of 1

1. STREET TREES SHALL BE LOCATED 8 FEET (MIN) FROM SANITARY SEWER, GAS, AND STORMWATER LINES.
2. STREET TREES SHALL BE LOCATED 5 FEET (MIN) FROM WATER, TELEPHONE AND ELECTRICAL LINES.
3. STREET TREES SHALL BE LOCATED 5 FEET (MIN) FROM FIRE HYDRANTS.
4. STREET TREES SHALL BE LOCATED 15 FEET (MIN) FROM STREET LIGHTS.
5. STREET TREES SHALL BE LOCATED 8 FEET (MIN) FROM DRIVEWAYS AND 4 FEET (MIN) AT CUL-DE-SAC.
6. STREET TREES SHALL BE GENERALLY 35 FEET ON CENTER.
7. STREET TREES SHALL BE LOCATED 15 FEET (MIN) FROM CURB RETURNS.
8. MINIMUM ONE TREE PER LOT REQUIRED, AND TWO PER CORNER LOT.
9. IF LOT WIDTH EXCEEDS 60 FEET AT THE STREET, ONE TREE IS REQUIRED EVERY 35 FEET OF STREET, EXCLUDING LENGTH OF CURB RETURN.



CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL

			<h1 style="text-align: center;">CITY OF FREMONT</h1> <h2 style="text-align: center;">STANDARD DETAILS</h2> <h3 style="text-align: center;"><u>CITY STANDARD</u></h3> <h2 style="text-align: center;">STREET TREE CLEARANCES</h2>				DATE APPROVED BY CITY COUNCIL 04/11/06	
							RESOLUTION NO. 2006-31	
								
APPR	REVISED	DATE						
REVISIONS							CITY ENGINEER	
FILE NO. LSD-05.DWG		SCALE 1" = 20'-0"		DRAWN PM/MM	CHECKED RER	DATE OCT. 2005	DWG NO. LSD-5	
							1 of 1	

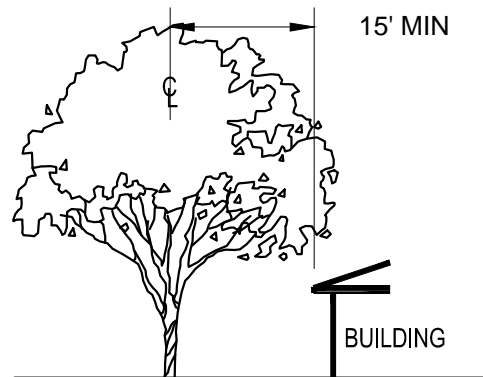
MINIMUM TREE CLEARANCES FROM BUILDINGS

BRANCHES FROM MATURE TREES MAY NOT OVERHANG BUILDINGS AND ROOFS. ADEQUATE SPACE TO PLANT TREES ADJACENT TO BUILDINGS OR OTHER BUILT FEATURES MUST BE PROVIDED IN THE FOLLOWING MINIMUM WAYS:

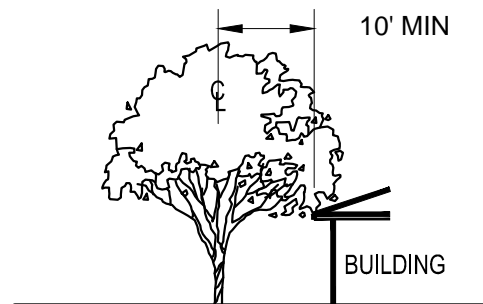
1. SMALL TREES (TO 15 FEET TALL AT MATURITY) NO CLOSER THAN 6 FEET FROM BUILDING OR 2 FEET* FROM PAVING, CURBS, OR WALLS WITH A MINIMUM PLANTING AREA 5 FEET WIDE.
2. MEDIUM TREES (TO 35 FEET TALL AT MATURITY) NO CLOSER THAN 10 FEET FROM BUILDING OR 3 FEET* FROM PAVING, CURBS, OR WALLS WITH A MINIMUM PLANTING AREA 6 FEET WIDE.
3. LARGE TREES (ABOVE 35 FEET TALL AT MATURITY) NO CLOSER THAN 15 FEET FROM BUILDING OR 3 FEET* FROM PAVING, CURBS, OR WALLS WITH A MINIMUM PLANTING AREA 6 FEET WIDE, PREFERABLY 8 FEET WIDE.
4. WHEN ROOF EAVES OR BUILDING PROJECTIONS EXTEND BEYOND FACE OF BUILDING, CLEARANCE SHALL BE MEASURED FROM EDGE OF PROJECTION TO CENTERLINE OF TREE.
5. UPPER STORY OVERHANGS AND BUILDING FEATURES MAY NOT EXTEND WITHIN MINIMUM CLEARANCE EXCEPT FOR MINOR ROOF EAVES.

* REFER TO CITY STANDARD DETAIL LSD-05 FOR REQUIRED SPACING FROM UTILITIES.

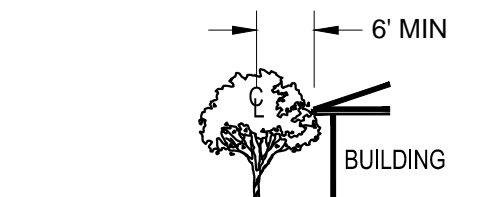
LARGE TREE




MEDIUM TREE



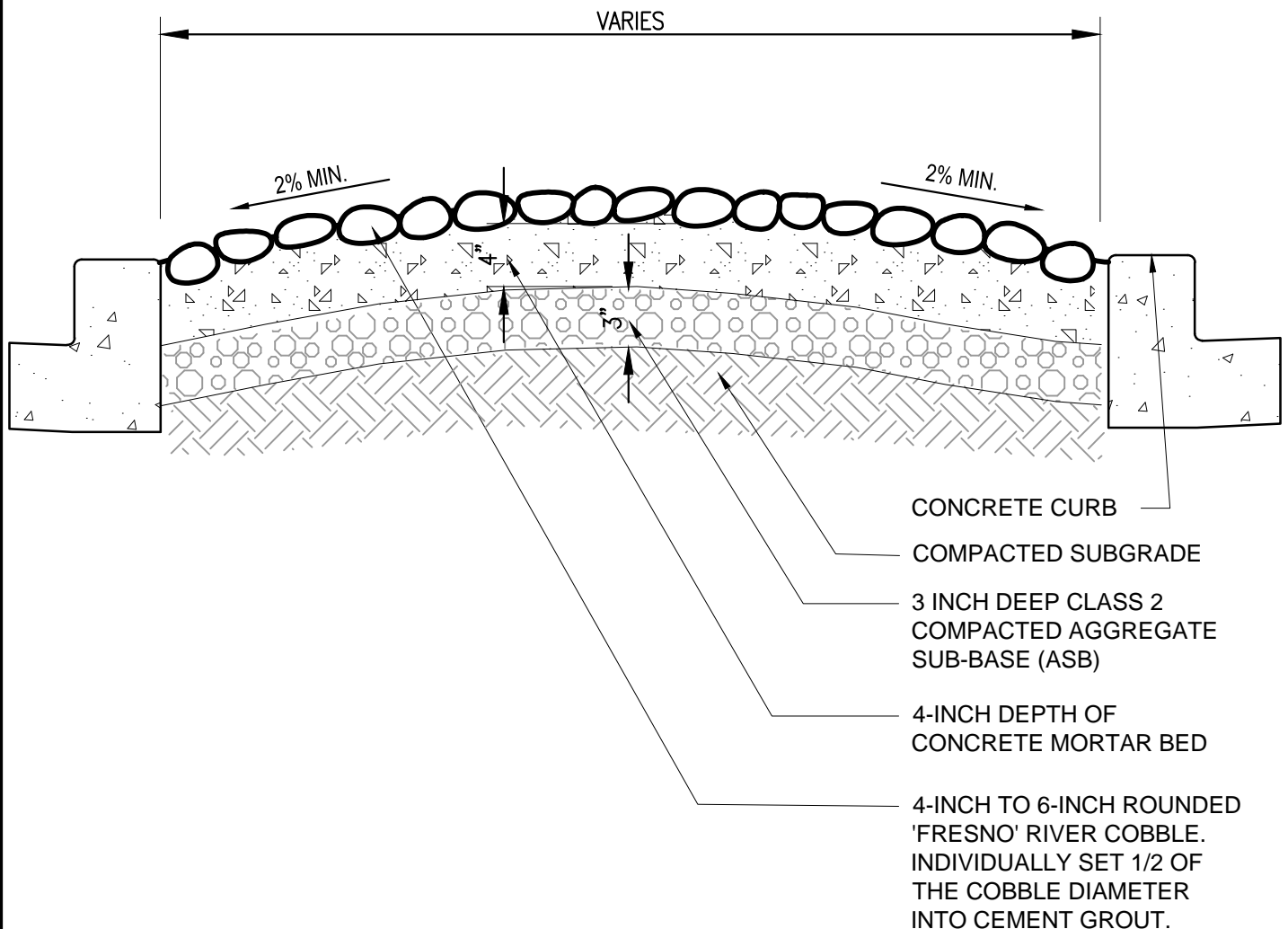
SMALL TREE

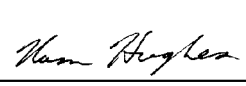


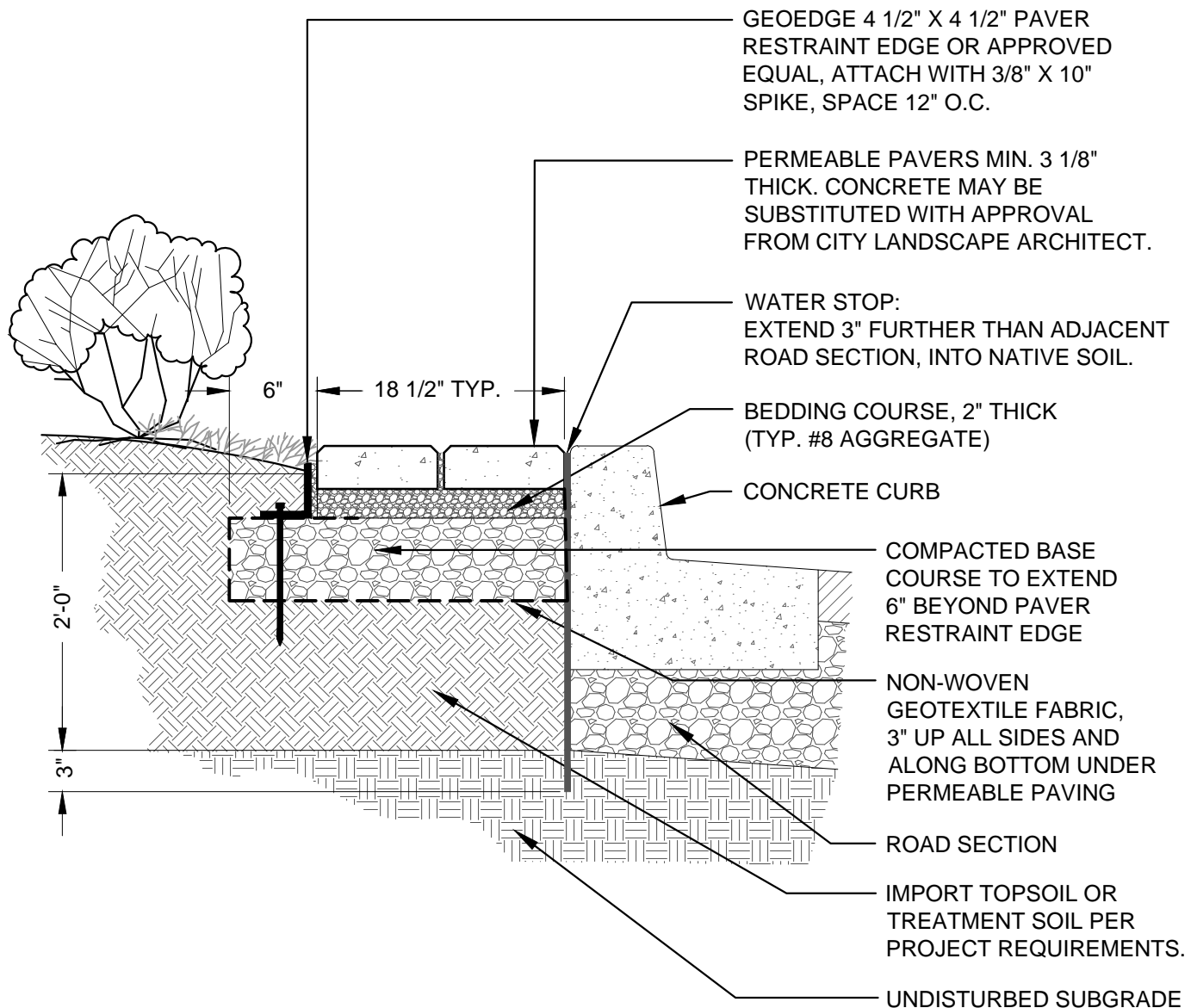
			CITY OF FREMONT STANDARD DETAILS CITY STANDARD TREE CLEARANCES				DATE APPROVED BY CITY COUNCIL 04/11/06		
							RESOLUTION NO. 2006-31		
									
APPR	REVISED	DATE					CITY ENGINEER		
REVISIONS									
FILE NO. LSD-6.DWG		SCALE 1"=20'-0"		DRAWN MQ/MM	CHECKED RER	DATE NOV. 2005	DWG NO. LSD-6		1 of 1

NOTES:

1. CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL.
2. CROWN TO BE ROUNDED WITH NO SHARP GRADE BREAKS.
3. MINIMIZE VISIBLE EXPOSED GROUT AT COBBLE JOINTS.
4. SURFACE OF COBBLE FIELD TO BE SMOOTH AND FLAT TO GRADE WITHOUT VARIATION IN HEIGHT OF INDIVIDUAL COBBLES.
5. COBBLES WITH BREAKS OR FRACTURES ARE NOT ALLOWED.
6. ROCK SHALL BE 'SATURATED SURFACE MOIST' (SSM) PRIOR TO PLACEMENT.
7. CONCRETE MORTAR BED SHALL HAVE A CEMENT RATIO PER CUBIC YARD OF CONCRETE OF NOT LESS THAN 564 POUNDS; SLUMP MAX. OF 3"; AGGREGATE SIZE $\frac{1}{4}$ " MAXIMUM.
8. INTEGRAL COLOR ADMIXTURE: CHROMIX, ADOBE TAN, #C-21 BY L.M. SCOFIELD.




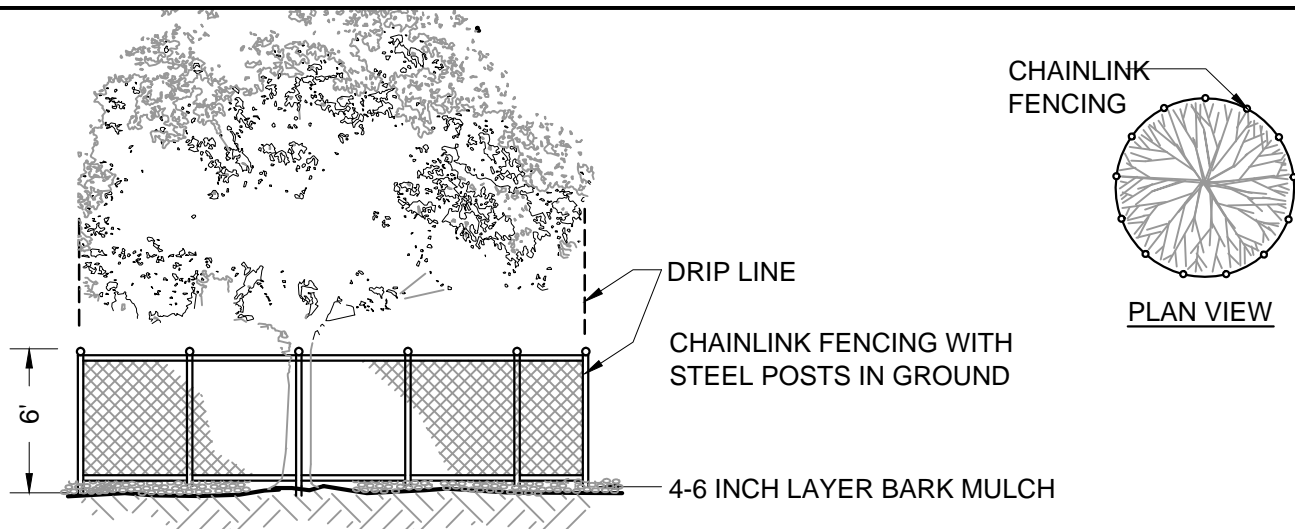
			CITY OF FREMONT STANDARD DETAILS CITY STANDARD MEDIAN PAVING COBBLE			DATE APPROVED BY CITY COUNCIL 04/11/06	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
APPR	REVISED	DATE	REVISIONS			FILE NO.	SCALE
						LSD-7.DWG	1" = 1'-0"
DRAWN		CHECKED		DATE		DWG NO.	
PM/MM		RER		NOV. 2005		LSD-7	1 of 1



NOTES:

1. ON MEDIANS LESS THAN 14 FEET WIDE, REPLACE MAINTENANCE BAND WITH 18 INCH MINIMUM WIDTH PLANTING OF WALKABLE GROUNDCOVER.
2. IF CONCRETE, INSTALL 'DEEP JOINTS' TO MATCH CURB & GUTTER DEEP JOINTS. SEE ENGINEERING STANDARD DETAIL 8 FOR DEFINITION OF 'DEEP JOINT.'
3. IF PAVERS ARE TO BE SET ADJACENT TO AN EXISTING TREE HAND EXCAVATE ALL AREAS WITHIN TREE DRIPLINE. SEE LSD-9 FOR TREE PRESERVATION NOTES.
4. PAVERS TO BE: 6 X 9 X 3 1/8 CALSTONE PERMEABLE PAVING UNITS, COLOR: RUSTIC YELLOW STONE, UNLESS APPROVED BY THE CITY LANDSCAPE ARCHITECT.

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>MAINTENANCE BAND</div>				DATE APPROVED BY CITY COUNCIL 12/13/11	
							RESOLUTION NO. 2006-31	
							<div></div> <div>CITY ENGINEER</div>	
	Council Revision	12/13/11						
APPR	REVISED	DATE						
REVISIONS								
FILE NO.		SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-8.DWG		1" = 1'-0"	PM/MM	RER	DEC. 2011	LSD-8		1 of 1



TREE PROTECTION NOTES

1. CURRENT STANDARD DETAIL AT CITY ENGINEERING DIVISION SHALL PREVAIL.
2. TREE PROTECTION MEASURES MUST BE IN PLACE BEFORE CONSTRUCTION, DEMOLITION AND/OR GRADING ACTIVITIES COMMENCE. CITY OF FREMONT WILL STOP CONSTRUCTION IF TREE PROTECTION MEASURES ARE NOT IN PLACE AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
3. TREES CALLED OUT FOR PRESERVATION SHALL BE FENCED AT THE DRIPLINE. FENCING MAY OCCUR AT THE COMBINED DRIPLINES OF GROVES OF TREES. PLACE 4-6 INCH BARK MULCH BENEATH DRIPLINES OF TREES TO BE PRESERVED. KEEP BARK 2-3 FEET FROM TREE TRUNK.
4. FENCING SHALL BE 6 FEET TALL CHAIN LINK FENCING WITH STEEL POSTS EMBEDDED IN THE GROUND.
5. NO GRADING SHALL OCCUR WITHIN THE DRIPLINES/FENCED AREA OF EXISTING TREES.
6. NO CONSTRUCTION MATERIALS OR CONSTRUCTION VEHICLES MAY BE STORED WITHIN THE DRIPLINES/FENCED AREA OF EXISTING TREES.
7. CONSTRUCTION VEHICLES OR MACHINERY MAY NOT PASS BETWEEN TWO OR MORE EXISTING TREES IDENTIFIED FOR PRESERVATION IF THEIR CANOPIES ARE WITHIN 10 FEET OF TOUCHING. ADDITIONAL FENCING MAY BE REQUIRED BY THE CITY AS NEEDED.
8. THE CONTRACTOR IS REQUIRED TO HAVE AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), APPROVED BY THE CITY, ON SITE IF SITE CONSTRUCTION EFFORTS REQUIRE REMOVAL OF EXISTING ROOTS OR BRANCH PRUNING. ROOTS APPROVED FOR CUTTING MUST BE CUT CLEANLY WITH A SAW. RIPPING OR SHREADING ROOTS SUBJECT TO FINE/PENALTY.
9. UNAUTHORIZED TREE REMOVAL IS SUBJECT TO REPLACEMENT EQUAL TO THE APPRAISED VALUE OF THE TREE LOST PER FMC 4-5108.
10. THE CONTRACTOR IS REQUIRED TO WATER, FERTILIZE AND ATTEND TO OTHER MAINTENANCE NEEDS OF EXISTING TREES TO MAINTAIN HEALTHY GROWTH THROUGHOUT THE CONSTRUCTION PERIOD. AN EARTH BERM MEASURING MINIMUM 6 FEET IN DIAMETER, AND 6 INCHES IN HEIGHT SHALL BE CONSTRUCTED AT THE BASE OF EACH TREE TO FUNCTION AS A TEMPORARY WATERING BASIN DURING THE CONSTRUCTION PERIOD. TREES SHALL BE WATERED ACCORDING TO WEATHER AND TREE SPECIES REQUIREMENTS.
11. IF TREES ARE BEING RELOCATED: RELOCATION OF EXISTING TREES SHALL OCCUR UNDER THE OBSERVATION AND DIRECTION OF A CERTIFIED ARBORIST APPROVED BY THE CITY OF FREMONT.
12. TRUNK WRAP PROTECTION SHALL OCCUR FOR TREES SITUATED IN SMALL TREE WELLS OR SIDEWALK PLANTERS. THIS FORM OF PROTECTION WILL BE ALLOWED BY APPROVAL FROM SENIOR LANDSCAPE ARCHITECT ONLY. REFER TO LSD-10.

<h2 style="margin: 0;">CITY OF FREMONT</h2> <h3 style="margin: 0;">STANDARD DETAILS</h3> <h3 style="margin: 0;">CITY STANDARD</h3> <h3 style="margin: 0;">TREE PROTECTION FENCING</h3>			DATE APPROVED BY CITY COUNCIL 12/13/11			
			RESOLUTION NO. 2006-31			
			CITY ENGINEER			
FILE NO. LSD-9.DWG	SCALE 1/8" = 1'-0"	DRAWN PM/MM	CHECKED RER	DATE DEC. 2011	DWG NO. LSD-9	1 of 1

Council Revision	12/13/11								
APPR	REVISED	DATE							
REVISIONS									

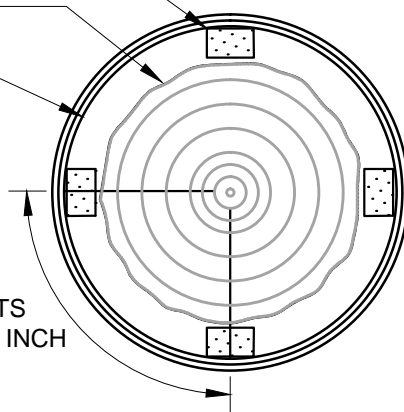
ELEVATION

2" X 4" WOOD SLATS, MAXIMUM 3 INCH
SPACING BETWEEN WOOD SLATS WITH
A MINIMUM OF 3 SLATS PER TREE _____

EXIST TREE TRUNK

ORANGE PLASTIC –
CONSTRUCTION
FENCE WRAPPED
TO A MINIMUM OF
3 LAYERS OUTSIDE
SLATS

WOOD SLATS
SPACING, 3 INCH
MAX (TYP.)

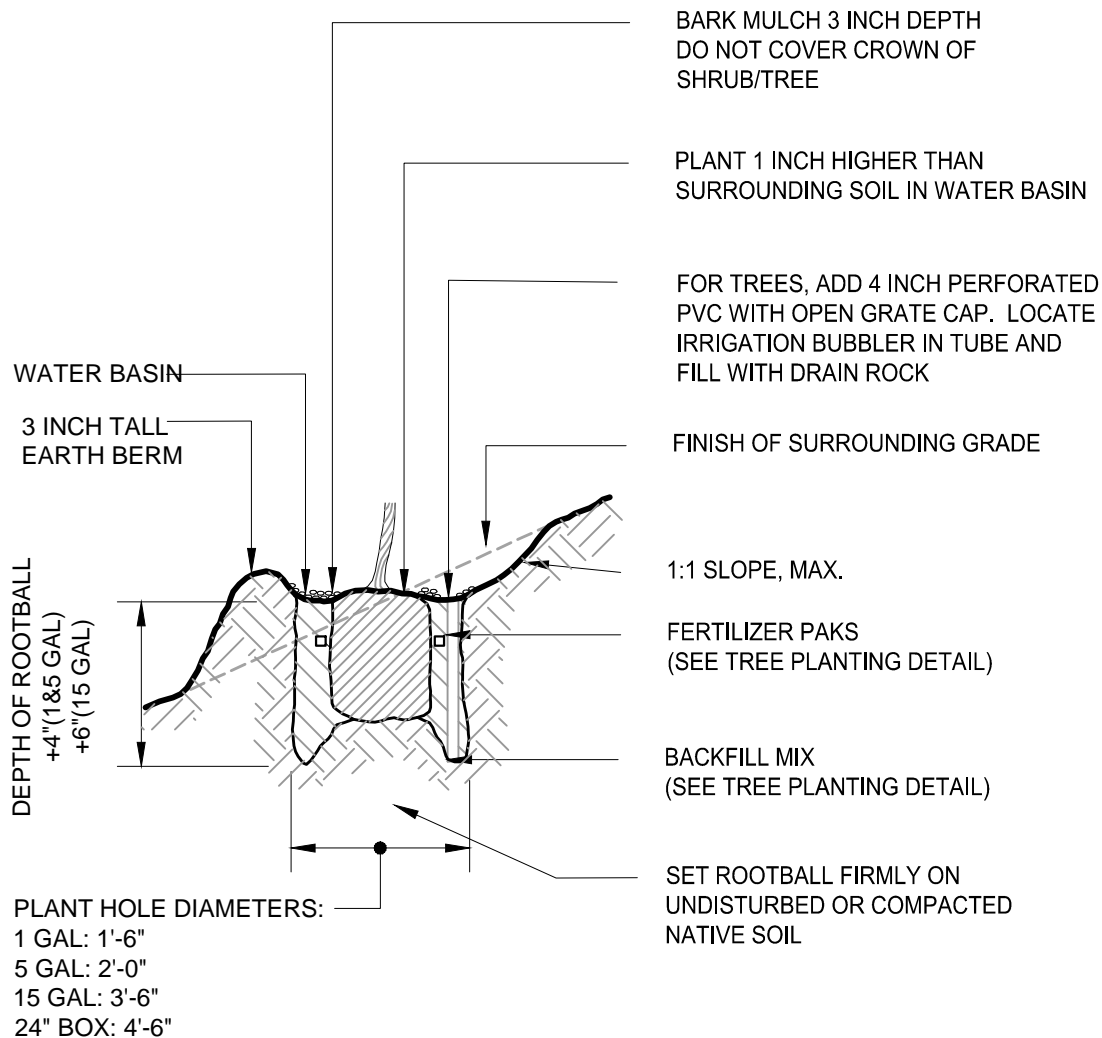


SECTION A-A

NOTE:

1. WRAP ORANGE PLASTIC CONSTRUCTION FENCE ON TOP OF WOOD SLATS WITH AN OVERLAP OF 12 INCHES AND TIE WITH WIRE.
SEE SECTION BELOW.
2. TEMPORARY TRUNK WRAP PROTECTION WILL BE ALLOWED ONLY BY APPROVAL FROM THE SENIOR LANDSCAPE ARCHITECT
3. DAMAGE TO BRANCHES & ROOTS SUBJECT TO FINE UP TO APPRAISED VALUE OF THE TREE, PER CITY TREE PRESERVATION ORDINANCE (FMC 4-5100).
4. REFER TO LSD-9 FOR ADDITIONAL TREE PROTECTION REQUIREMENTS APPLICABLE TO THIS DETAIL.
5. TRUNK WRAP SHALL BE IN PLACE NO MORE THAN 5 WORKING DAYS BEFORE WORK ADJACENT TO TREE, AND REMOVED NO MORE THAN 5 WORKING DAYS AFTER WORK ADJACENT TO THE TREE, UNLESS OTHERWISE APPROVED BY THE CITY.

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>TEMPORARY TRUNK WRAP</div> <div>PROTECTION</div>				DATE APPROVED BY CITY COUNCIL	
							12/13/11	
							RESOLUTION NO. 2006-31	
	Council Revision	12/13/11					<div>Nam Hughes</div>	
APPR	REVISED	DATE						
REVISIONS			CITY ENGINEER					
FILE NO.		SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-10.DWG		3/4"=1'-0"	PN/MM	RER	DEC. 2011	LSD-10	1 of 1	



NOTES:


1. KEEP TURF AND PLANTS OUTSIDE THE EARTH BERM/WATER BASIN
2. SEE TREE PLANTING DETAIL FOR STAKING INFO.
3. THIS DETAIL TO BE REFERENCED, PER CITY STANDARD DETAIL LSD-11, FOR TREE PLANTING IN A VEGETATED BIOSWALE.

<div> <div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD TREE AND SHRUB PLANTING AT SLOPE</div> </div>	DATE APPROVED BY CITY COUNCIL 12/13/11	
	RESOLUTION NO. 2006-31	
	CITY ENGINEER	
FILE NO. LSD-12.DWG	SCALE 1/4" = 1'-0"	DRAWN AK/MM/PM
APPR General Revision	REVISOR REVISOR	DATE DATE
REVISIONS		
CHECKED RER	DATE NOV. 2005	DWG NO. LSD-12
		1 of 1

TREE CHARACTERISTICS																		ENVIRONMENTAL TOLERANCES				PLANTING SPACE REQ'S					
TYPE	SHAPE		HEIGHT		SPREAD	VIGOR	ROOTING		LEAF SIZE	SHADE	FALL COLOR	FLOWER	DEBRIS	USEFUL LIFE			SOIL		WATER USE								
	Columnar	Round	0-15 (small)	15-35 (medium)			35 and over (large)	Shallow Surface						Deep	Large Vigorous	Medium	Small	Dense		Filtered	Yes	No	30 YEARS	60 YEARS	100+ YEARS	Good Drainage	Poor Drainage
Evergreen	Columnar	Round <td>0-15 (small)</td> <td>15-35 (medium)</td> <td>35 and over (large)</td> <td>Slow</td> <td>Fast</td> <td>Shallow Surface</td> <td>Deep</td> <td>Large Vigorous</td> <td>Medium</td> <td>Small</td> <td>Dense</td> <td>Filtered</td> <td>Yes</td> <td>No<td>30 YEARS</td><td>60 YEARS</td><td>100+ YEARS</td><td>Good Drainage</td><td>Poor Drainage</td><td>Boron</td><td>Sodium</td><td>Yes</td><td>No</td></td>	0-15 (small)	15-35 (medium)	35 and over (large)	Slow	Fast	Shallow Surface	Deep	Large Vigorous	Medium	Small	Dense	Filtered	Yes	No <td>30 YEARS</td> <td>60 YEARS</td> <td>100+ YEARS</td> <td>Good Drainage</td> <td>Poor Drainage</td> <td>Boron</td> <td>Sodium</td> <td>Yes</td> <td>No</td>	30 YEARS	60 YEARS	100+ YEARS	Good Drainage	Poor Drainage	Boron	Sodium	Yes	No		
Deciduous	Columnar	Round <td>0-15 (small)</td> <td>15-35 (medium)</td> <td>35 and over (large)</td> <td>Slow</td> <td>Fast</td> <td>Shallow Surface</td> <td>Deep</td> <td>Large Vigorous</td> <td>Medium</td> <td>Small</td> <td>Dense</td> <td>Filtered</td> <td>Yes</td> <td>No<td>30 YEARS</td><td>60 YEARS</td><td>100+ YEARS</td><td>Good Drainage</td><td>Poor Drainage</td><td>Boron</td><td>Sodium</td><td>Yes</td><td>No</td></td>	0-15 (small)	15-35 (medium)	35 and over (large)	Slow	Fast	Shallow Surface	Deep	Large Vigorous	Medium	Small	Dense	Filtered	Yes	No <td>30 YEARS</td> <td>60 YEARS</td> <td>100+ YEARS</td> <td>Good Drainage</td> <td>Poor Drainage</td> <td>Boron</td> <td>Sodium</td> <td>Yes</td> <td>No</td>	30 YEARS	60 YEARS	100+ YEARS	Good Drainage	Poor Drainage	Boron	Sodium	Yes	No		
Conifer	Columnar	Round <td>0-15 (small)</td> <td>15-35 (medium)</td> <td>35 and over (large)</td> <td>Slow</td> <td>Fast</td> <td>Shallow Surface</td> <td>Deep</td> <td>Large Vigorous</td> <td>Medium</td> <td>Small</td> <td>Dense</td> <td>Filtered</td> <td>Yes</td> <td>No<td>30 YEARS</td><td>60 YEARS</td><td>100+ YEARS</td><td>Good Drainage</td><td>Poor Drainage</td><td>Boron</td><td>Sodium</td><td>Yes</td><td>No</td></td>	0-15 (small)	15-35 (medium)	35 and over (large)	Slow	Fast	Shallow Surface	Deep	Large Vigorous	Medium	Small	Dense	Filtered	Yes	No <td>30 YEARS</td> <td>60 YEARS</td> <td>100+ YEARS</td> <td>Good Drainage</td> <td>Poor Drainage</td> <td>Boron</td> <td>Sodium</td> <td>Yes</td> <td>No</td>	30 YEARS	60 YEARS	100+ YEARS	Good Drainage	Poor Drainage	Boron	Sodium	Yes	No		
Botanical Name: Common Name																											
Acacia melanoxylon: Black Acacia																											
Acer palmatum: Japanese Maple																											
Acer rubrum: Scarlet/Red Maple																											
Aesculus californica: California Buckeye																											
Aesculus x carnea: Red Horse Chestnut																											
Albizia julibrissin: Silk Tree																											
Alnus cordata: Italian Alder																											
Arbutus 'Marina': Strawberry Tree																											
Betula pendula: European White Birch																											
Brachychiton populneus: Bottle Tree																											
Casuarina stricta: Beechwood																											
Cedrus deodard: Deodar Cedar																											
Celtis sinensis: Chiness Hackberry																											
Cercis canadensis: Eastern Redbud																											
Cinnamomum camphora																											
Crataegus phaeocorynum: Washington Thorn																											
Eriobotrya deflexa: Bronze Loquat																											
Eucalyptus camaldulensis: River Red Gum																											
Eucalyptus leucocylon: White Ironbark																											
Eucalyptus melliodora																											
Eucalyptus nuda: Desert Gum																											
Fraxinus americana 'Autumn Purple'																											
Fraxinus velutina 'Rio Grande': Fan Tex Ash																											
Geigera parviflora: Australian Willow																											
Ginkgo biloba: Maidenhair Tree																											
Jacaranda mimosifolia: Jacaranda																											
Lagerstroemia cultivars: Grape Myrtle																											
Laurus nobilis 'Stratford': Grecian Laurel																											
Magnolia grandiflora: Southern Magnolia																											
Magnolia soulangeana: Southern Magnolia																											
Melaleuca ericifolia: Heath Melaleuca																											
Melaleuca linariifolia: Flaxleaf Paperbark																											
Melaleuca quinquenervia: Cajuput Tree																											
Melaleuca stypheloides: Melaleuca																											
Morus alba: Fruitless Mulberry																											
Olea europaea 'Swan Hill': Fruitless Olive																											
Pinus canariensis: Canary Island Pine																											
Pinus pinea: Italian Stone Pine																											
Pistacia chinensis: Pistache																											
Platanus acerifolia 'Columbia': Sycamore																											
Platanus acerifolia 'Bloodgood'																											
Prunus cerasifera: Purple Leaf Plum																											
Pyrus calleryana 'Aristocrat': Flowering Pear																											
Pyrus calleryana 'Chanticleer': Flowering Pear																											
Pyrus calleryana 'Red Spire': Flowering Pear																											
Quercus agrifolia: Coast Live Oak																											
Quercus coccinea: Scarlet Oak																											
Quercus ilex: Holly Oak																											
Quercus lobata: Valley Oak																											
Quercus rubra: Red Oak																											
Rhus lancea: African Sumac																											
Robinia ambigua 'Idahoensis': Idaho Locust																											
Schinus molle: California Pepper Tree																											
Sequoia sempervirens: Coast Redwood																											
Sapium sebiferum: Chinese Tallow																											
Sophora japonica 'Regent': Japanese Pagoda																											
Zelkova serrata: Japanese Zelkova																											
Tristania laurina: Swamp Myrtle																											
Fraxinus oxycarpa (Raywood Ash), Liquidambar styraciflua (Sweet Gum), Populus spp. (Poplar Tree)																											













Note: The following trees are not recommended: Fraxinus oxycarpa (Raywood Ash), Liquidambar styraciflua (Sweet Gum), Populus spp. (Poplar Tree)

TREE CHOICES ARE NOT LIMITED TO THIS LIST.
THIS LIST IS ONLY A GUIDE.


CITY OF FREMONT STANDARD DETAILS		DATE APPROVED BY CITY COUNCIL 12/13/11	
CITY STANDARD		RESOLUTION NO. 2006-31	
TREE PLANTING GUIDE LIST		 CITY ENGINEER	
FILE NO. LSD-13.DWG	SCALE NONE	DRAWN MM	CHECKED RER
DATE DEC. 2011	DWG NO. LSD-13	1 of 1	

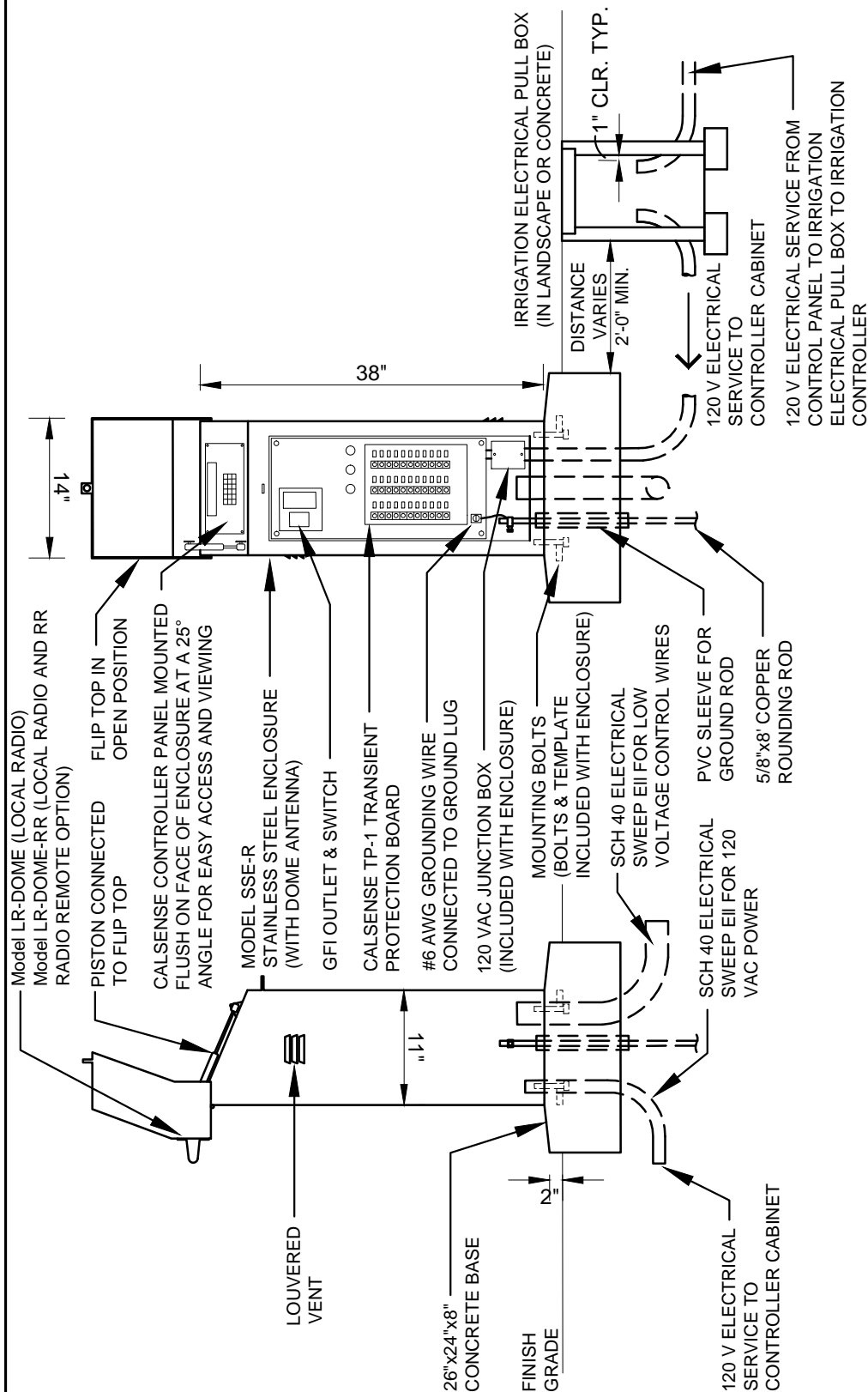
APPR	REVISIONS	DATE
	Council Revision	12/13/11

CITY OF FREMONT IRRIGATION STANDARD MATERIALS

STANDARD SYMBOL	DESCRIPTION	MANUFACTURER	MODEL # (if applicable)	COMMENTS	LANDSCAPE STANDARD DETAIL
	Irrigation Controller w/ Enclosure	Calsense	ET 2000e	w/ all applicable software as required by the city, and dome antenna	LSD-15
	Irrigation Controller Enclosure	Calsense Enclosure	SSE-R	Heavy-Duty Stainless Steel	LSD-15
	Reduced Pressure-Principle Backflow Preventer with cage and concrete pad	Febco	825-Y		LSD-16
	Backflow Assembly Cage	Guardshack	GS Series	Powdercoat Black	LSD-17
	Irrigation Trench - Mainline		Sch. 40 PVC for 2" & less Class 315 PVC for 2-1/2" & larger	24" below fin. grade	LSD-18
	Irrigation Trench - Lateral line		Class 200 PVC for 1 1/4" and greater Sch. 40 PVC for line 1" & smaller	18" below fin. grade	LSD-18
	Sleeves		Class 315 PVC	Refer to LSD-18 for depth and size	LSD-18
	Quick-Coupling Valve (in box)	Hunter	HQ-44LRC-AW HR-44A	Winged body w/ 1" key, locking cover, and key	LSD-19
	Quick-Coupling Valve Box	Carson Pentek	910 Lockable Superflexon	10" Round box w/ lid	LSD-19
	Wire Splice	Scotchlok Y-spring connector		Install per detail LSD-20	LSD-20
	Turf Sprinklers	Toro Hunter	Super 700C Series I-40 OR I-20 365-XX, 360 d, ADJ	Large Turf Areas	LSD-21
	Turf Sprinklers	Toro	640 Series	Large Turf Areas	LSD-21
	Turf Sprinklers	Toro	570Z-6P/12P-O-T Precision Series	Small Turf Areas	LSD-21
	Shrub/Groundcover	Toro	570Z-6P/12P-O-T Precision Series	Shrub/Groundcover Areas	LSD-21
	Shrub Bubblers	Toro	PC-FB-25	Shrubs	
	Tree Bubblers	Toro	PC-FB-50	Trees	LSD-01
	Gate Valve (in box)	Nibco	T-113		LSD-22
	Gate Valve Box	Carson Pentek	910 Lockable Superflexon	10" Round box w/ lid	LSD-22
	Remote Control Valve (in box)	Griswold	2000 Series NC - Solenoid Valve 2230 Series NC - Pressure Reducing	NC = Normally Closed	LSD-23
	Remote Control Valve Box	Carson Pentek	1324 Lockable Superflexon	13" X 18" box w/ lid	LSD-23
	"Y" Strainer	Febco	650A 1/2"-2"		LSD-26
	Pressure Reducing Valve	Febco/Wilkins/Watts	XXX		LSD-25
	Flow Sensor	Calsense	FM-1B		LSD-24
	Master Valve	Griswold	2160 Series NO - Solenoid Valve	NO = Normally Open	LSD-24

Note: Symbols shown are city standard for those items

<div> <div></div> <div></div> <div>Council Revision12/13/11</div> <div>General Revision6/07/10</div> <div>APPRREVISEDDATE</div> <div>REVISIONS</div> </div>			<div> <div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>IRRIGATION MATERIALS</div> </div>			DATE APPROVED BY CITY COUNCIL 12/13/11	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
						DWG NO. LSD-14	
FILE NO.	SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-14.DWG	NONE	MAM/CC	RER	DEC. 2011	LSD-14	1 of 1	



FRONT VIEW

SIDE VIEW

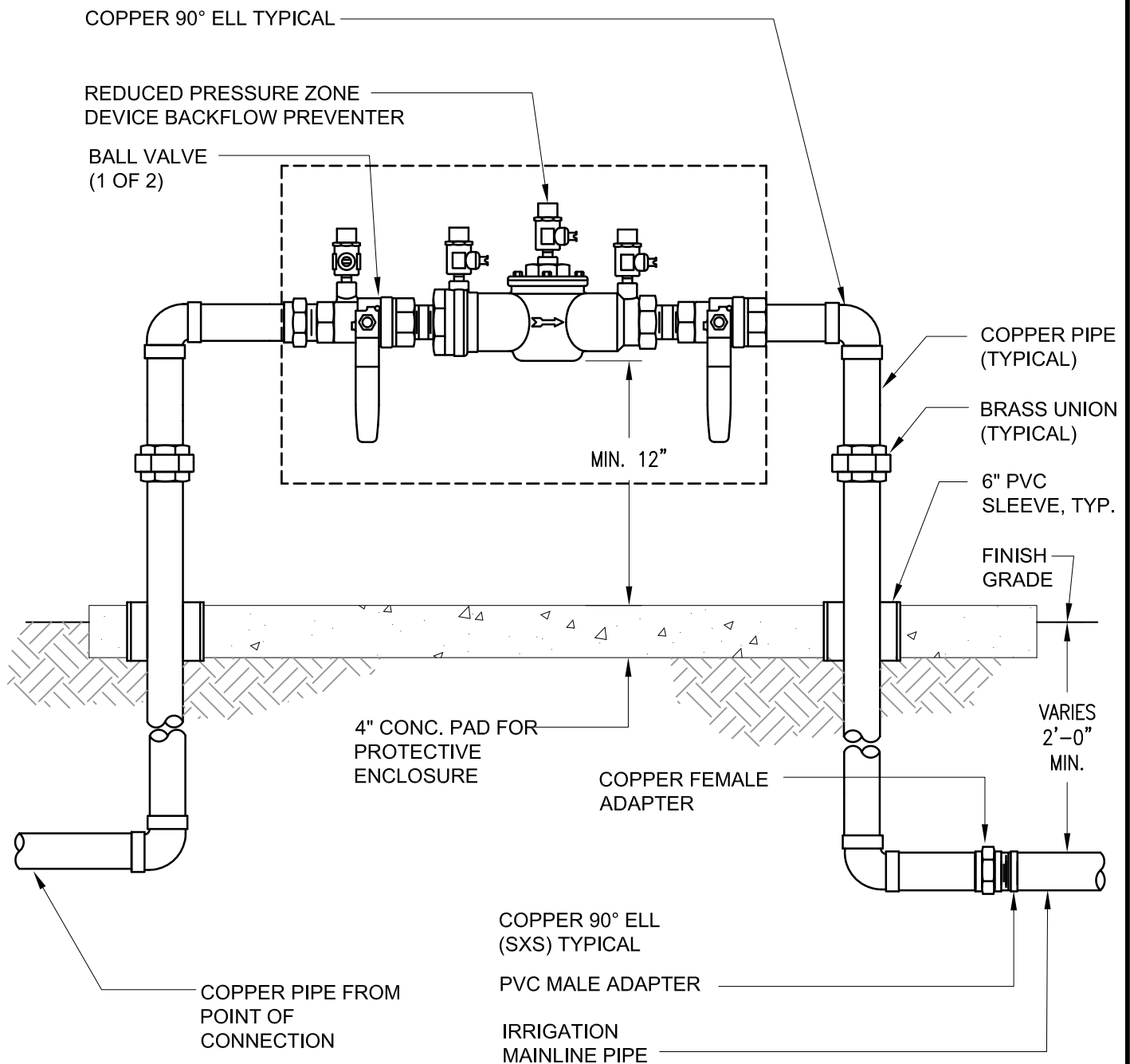
ELECTRICAL SERVICE FOR IRRIGATION CONTROLLER - PULL BOX.

1. ALL NOTES RELATED TO UNDERGROUND SERVICE TO ELECTROLIERS SHALL APPLY TO THIS CONDITION FOR SUPPLYING 120 VOLT SERVICE TO IRRIGATION CONTROLLERS IN THE CITY RIGHT OF WAY.
2. ALL UNDERGROUND WIRING SHALL BE IN APPROVED CONDUIT. THE UNDERGROUND CONDUIT AND ALL METAL PARTS SHALL BE CONTINUOUSLY BONDED AND GROUNDED.
3. "IRRIGATION ELECTRICAL" SHALL BE THE TITLE INTEGRATED IN THE LID.
4. USE FELT PAPER TO BLOCK OPENING BETWEEN CONDUITS.

	General Revision	***/*/*
APPR	REVISED	DATE
REVISIONS		
FILE NO.	SCALE	DRAWN
LSD-15.DWG	3/4" = 1'-0"	AK/MM/PM


CITY OF FREMONT
STANDARD DETAILS
CITY STANDARD IRRIGATION
CONTROLLER CABINET
W/ CALSENSE CONTROLLER

DATE APPROVED BY CITY COUNCIL 12/13/11	
RESOLUTION NO. 2006-31	
<i>Nam Hughes</i>	
CITY ENGINEER	
DWG NO.	1 of 1
LSD-15	



NOTES:

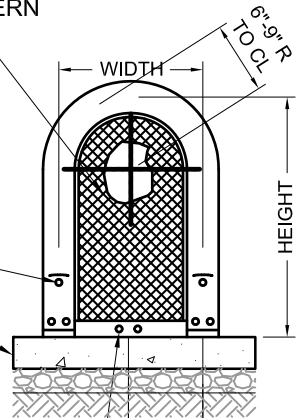
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.
2. INSTALL FREEZE PROTECTION JACKET AND CAGE. SEE CITY STANDARD DETAIL LSD-17 FOR CAGE DETAIL.
3. REFER TO CITY STANDARD DETAIL LSD-14 FOR ALL MATERIALS

			CITY OF FREMONT STANDARD DETAILS					DATE APPROVED BY CITY COUNCIL 12/13/11				
								RESOLUTION NO. 2006-31				
1	MISC REVISIONS	9/09	CITY STANDARD IRRIGATION BACKFLOW PREVENTER UNIT					 CITY ENGINEER				
APPR	REVISED	DATE										
REVISIONS												
FILE NO. LSD-16.DWG		SCALE 1" = 1'-0"		DRAWN PM/MM		CHECKED RER		DATE NOV. 2005		DWG NO. LSD-16		16 of 27

1/2-INCH NO. 13 FLATTED
DIAMOND PATTERN
STEEL MESH

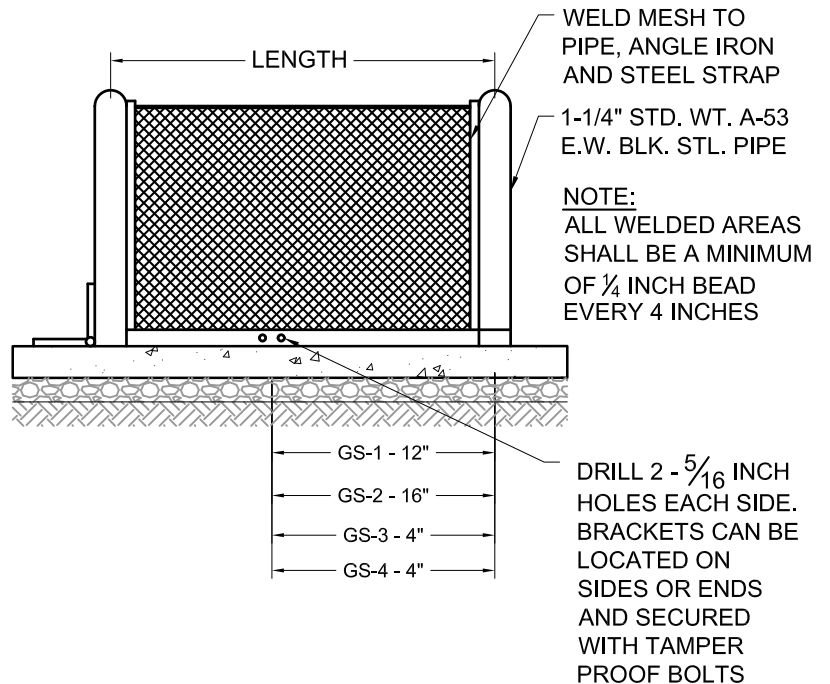
WELD 4-INCH
STL. HINGES (2)
ON GS-3 AND
GS-4

4-INCH
CONCRETE
PAD



DRILL 2 HOLES AS NOTED -

GS-1	EACH END	6"	GS 1-2-3
GS-2	EACH END		
GS-3	ONE END ONLY	9"	GS-4
	OPPOSITE HINGED END		
GS-3.5	SAME AS GS-2H		
GS-4	SAME AS GS-2H		

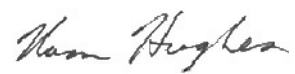


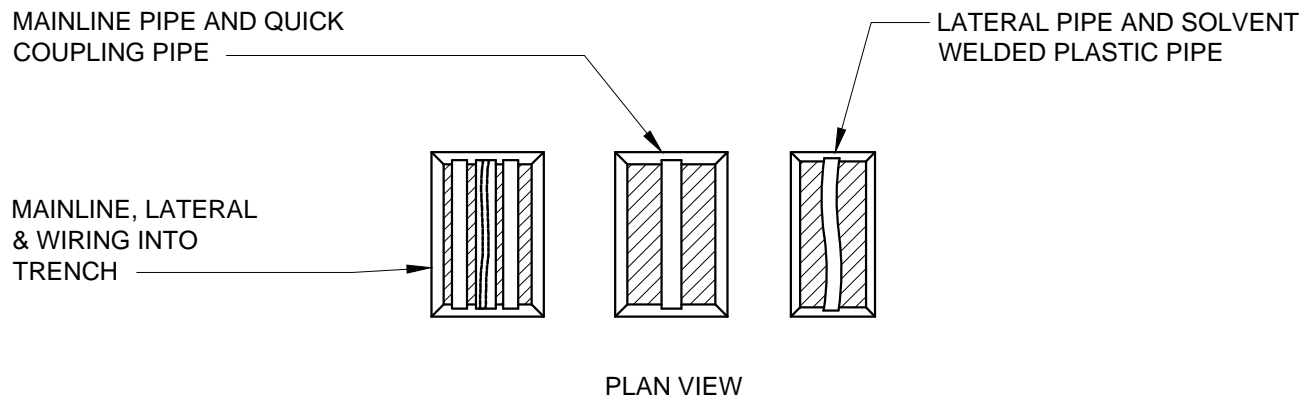
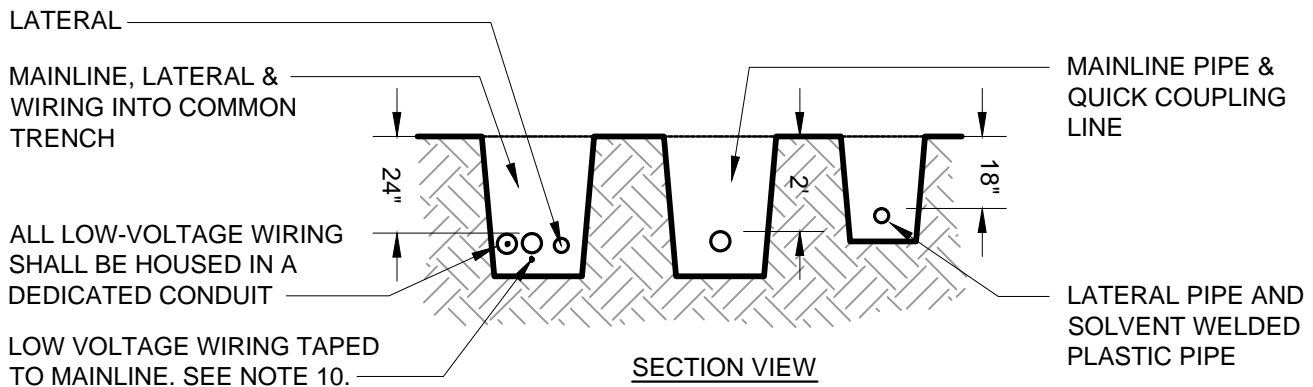
STD. SIZES	CENTERLINE DIMENSIONS		WEIGHT
GS-.5	12"W x 18"H x 12"L	LIFT OFF UNIT	35
GS-1	12"W x 24"H x 24"L	LIFT OFF UNIT	40
GS-2	12"W x 24"H x 32"L	LIFT OFF UNIT	45
GS-3	12"W x 24"H x 42"L	HINGED UNIT	51
GS-4	18"W x 30"H x 48"L	HINGED UNIT	67

NOTE:
GS = POWDER-COATED STEEL GUARDSHACK OR APPROVED EQUAL

NOTES:


1. AFTER ALL WELDING, ENTIRE UNIT SHALL BE PROCESSED WITH IRON PHOSPHATE PRE-TREATMENT. ELECTROSTATIC APPLICATION OF POWDER SHALL BE FUSION BONDED. POWDERCOAT COLOR SHALL BE BLACK.
2. ALL BOLTS FOR HINGES AND HASPS SHALL BE ZINC-PLATED TAMPER PROOF, EXCEPTION - USE SS HARDWARE FOR SS UNITS.
SS = STAINLESS STEEL
3. REFER TO SPECIFICATIONS FOR MODEL NUMBER
4. REFER TO CITY STANDARD DETAIL LSD-14 FOR ALL MATERIALS

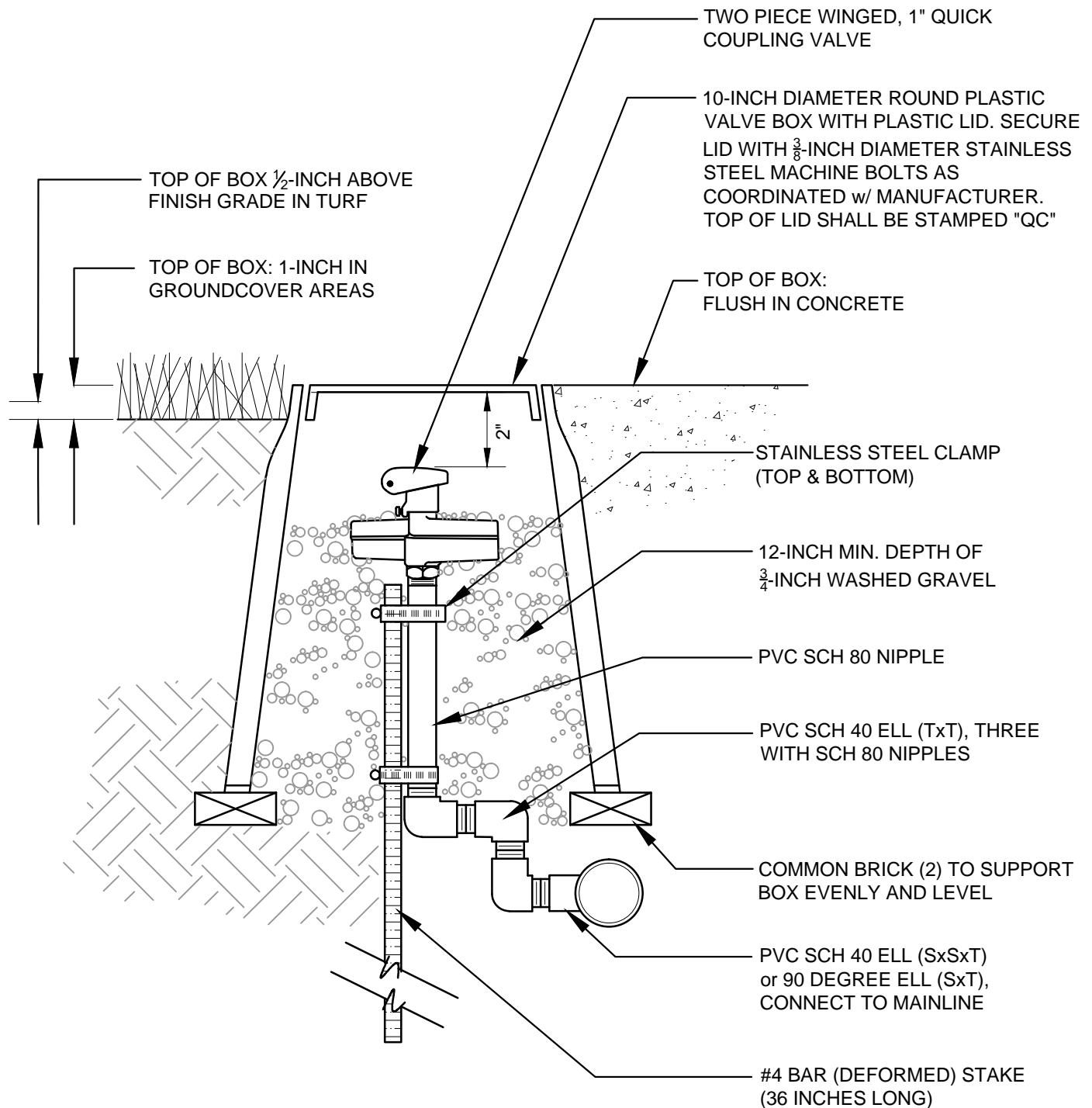
<div style="text-align: center;"> <h2>CITY OF FREMONT</h2> <h3>STANDARD DETAILS</h3> <h3>CITY STANDARD</h3> <h3>BACKFLOW PREVENTER</h3> <h3>UNIT ENCLOSURE</h3> </div>			DATE APPROVED BY CITY COUNCIL 12/13/11			
			RESOLUTION NO. 2006-31			
						
			CITY ENGINEER			
APPR	REVISED	DATE	REVISIONS			
FILE NO.	SCALE	DRAWN	CHECKED	DATE	DWG NO.	
LSD-17.DWG	1/2" = 1'-0"	AK/MM/PN	RER	NOV. 2005	LSD-17	1 of 1



NOTES:



1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH CLASS 315 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE CONDUIT WITHIN; BURIAL DEPTH FOR SLEEVES BELOW FINISHED GRADE ARE AS FOLLOWS:
 42 INCH MINIMUM UNDER THOROUGHFARE AND STREETS
 24 INCH MINIMUM UNDER PLANTER AREA
 24 INCH MINIMUM UNDER PARKING LOT
 18 INCH MINIMUM UNDER SIDEWALK
 36 INCH MINIMUM UNDER TRAFFIC CIRCLES (RESIDENTIAL AREAS)
2. ALL SLEEVE BELOW HARDSCAPE SHALL EXTEND 24 INCHES BEYOND HARD SURFACE EDGES.
3. FOR PIPE AND WIRE BURIAL DEPTHS, SEE SPECIFICATIONS, MAINLINE SHALL HAVE MINIMUM COVER OF 24 INCHES, LATERAL SHALL HAVE MINIMUM COVER OF 18 INCHES.
4. SCH 40 PVC FOR MAINLINE 2 INCHES OR SMALLER.
5. CLASS 315 PVC FOR MAINLINE 2 1/2 INCHES AND LARGER.
6. CLASS 200 PVC FOR 2 INCH LATERAL LINES AND SMALLER.
7. SCH 40 PVC FOR QUICK COUPLING LINE 1 INCH MIN. TO 2 INCH MAXIMUM
8. TRENCH BACKFILL SHALL BE NATIVE MATERIAL, COMPACT TO 90% MINIMUM, RELATIVE COMPACTION UNLESS UNDER CONCRETE OR ASPHALT. USE TRENCH BACKFILL PER CITY SPECIFICATION 11A AND 11B UNDER CONCRETE OR ASPHALT.
9. REFER TO DETAIL LSD-14 FOR IRRIGATION MATERIALS LIST.
10. IF APPROVED IN WRITING FROM THE CITY'S LANDSCAPE ARCHITECT, CONTROL WIRE MAY BE INSTALLED WITHOUT CONDUIT. INSTEAD, RUN WIRING BENEATH MAINLINE. TAPE AND BUNDLE AT 10 FOOT INTERVALS. TIE A 24 INCH LOOP IN ALL WIRING AT CHANGES OF DIRECTION OF 30 INCHES OR GREATER. UNTIE AFTER ALL CONNECTIONS HAVE BEEN MADE.

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>IRRIGATION TRENCH</div>				DATE APPROVED BY CITY COUNCIL 12/13/11	
							RESOLUTION NO. 2006-31	
							<div></div> <div>CITY ENGINEER</div>	
	Council Revision	12/13/11						
APPR	REVISED	DATE						
REVISIONS								
FILE NO.		SCALE		DRAWN	CHECKED	DATE	DWG NO.	
LSD-18.DWG		1/4" = 1'-0"		AK/MM/PM	RER	DEC. 2011	LSD-18	
							1 of 1	

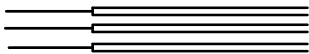


NOTE:

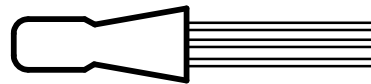
- CONTRACTOR SHALL PROVIDE:
 - VALVE KEYS
 - SWIVEL HOSE-ELLS
- ALL BOXES SHALL BE OFFSET 12-INCHES FROM ANY SIDEWALK, CURB &/or HEADER

			CITY OF FREMONT STANDARD DETAILS CITY STANDARD IRRIGATION QUICK COUPLING VALVE IN BOX				DATE APPROVED BY CITY COUNCIL 12/13/11	
							RESOLUTION NO. 2006-31	
	Council Revision	12/13/11						
	General Revision	06/07/10						
APPR	REVISED	DATE					CITY ENGINEER	
REVISIONS								
FILE NO.		SCALE		DRAWN	CHECKED	DATE	DWG NO.	
LSD-19.DWG		3" = 1'-0"		AK/MM/PM	RER	DEC. 2011	LSD-19	
							1 of 1	

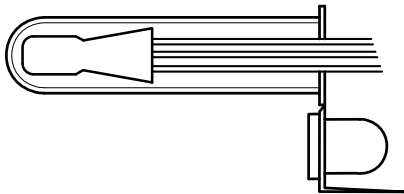
STEP 1: STRIP WIRES ½ INCH FROM ENDS.



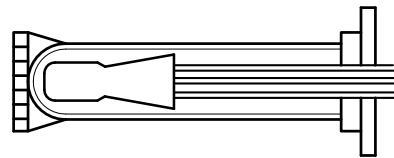
STEP 2: APPLY SCOTCHLOK Y SPRING CONNECTOR IN A CLOCKWISE DIRECTION.



STEP 3: INSERT SPLICE FILLED TO BOTTOM OF GEL-FILLED TUBE, CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT BOTTOM OF TUBE.



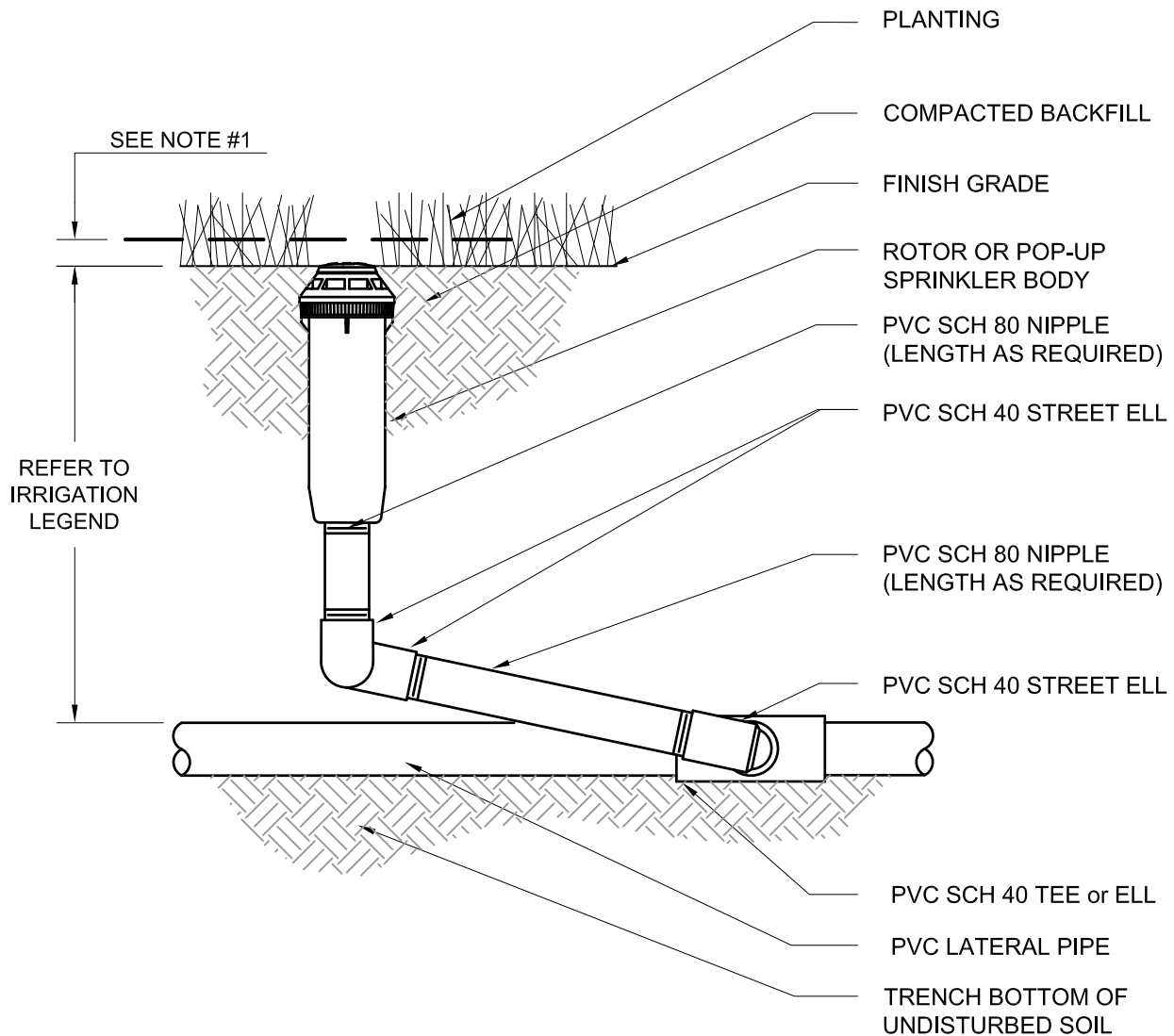
STEP 4: POSITION WIRES IN WIRE CHANNELS AND CLOSE INSULATOR TUBE COVER.



NOTE:


1. MAXIMUM WIRE SIZES PER CONNECTOR ARE 3-#14'S OR 2-#12'S
2. REFER TO CITY STANDARD DETAIL LSD-14 FOR MATERIALS

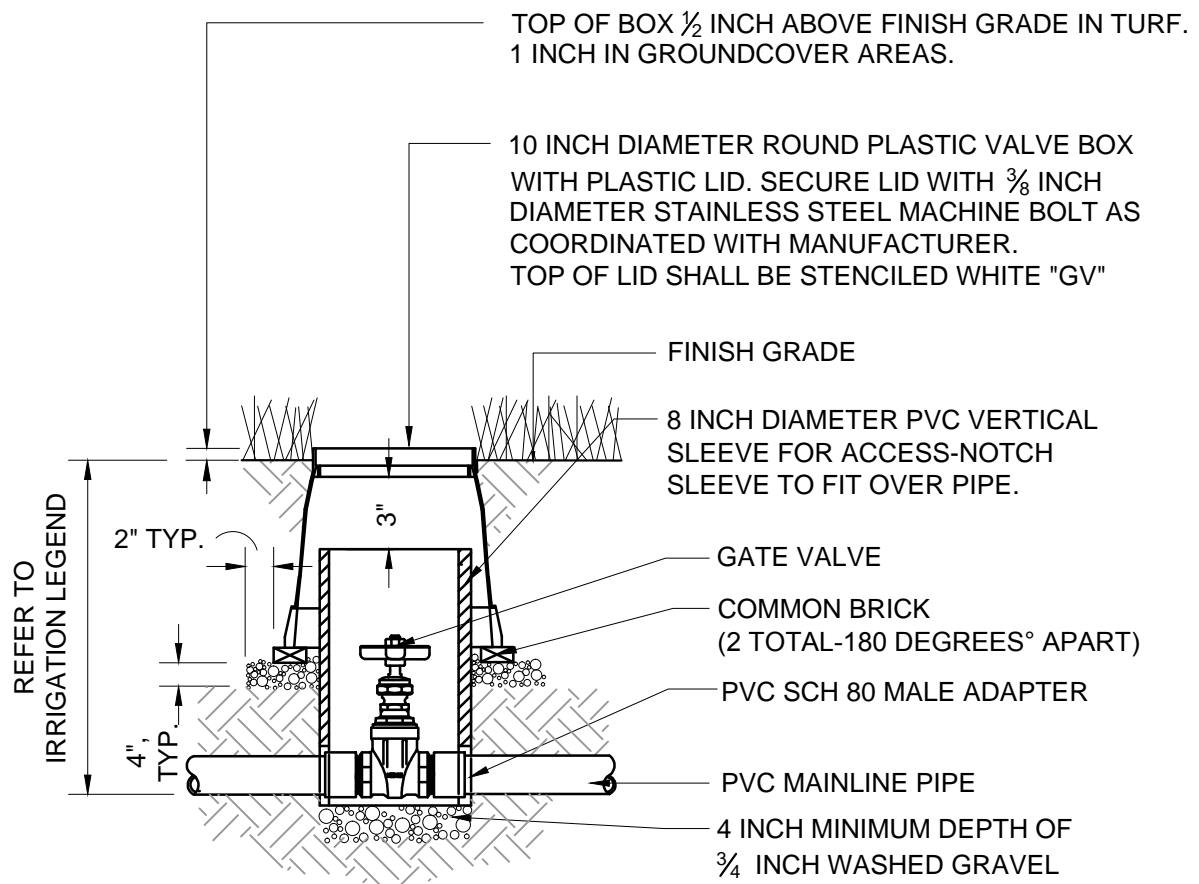
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			RESOLUTION NO. 2006-31			
			CITY ENGINEER			
FILE NO. LSD-20.DWG	SCALE NONE	DRAWN AK/MM/PM	CHECKED RER	DATE NOV. 2005	DWG NO. LSD-20	1 of 1



NOTE:

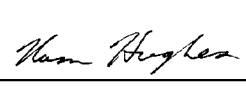
1. INSTALL TOP OF POP-UP SPRINKLER 1 INCH ABOVE FINISHED GRADE IN SHRUB AREAS AND FLUSH WITH GRADE IN TURF AREAS.
2. ROTORS SHALL BE INSTALLED FLUSH IN TURF AREAS.
3. REFER TO CITY STANDARD DETAIL LSD-14 FOR MATERIALS
4. INSTALL A MINIMUM OF 9" FROM EDGE OF PAVEMENT IN SHRUB AREAS AND 2" IN TURF AREAS.

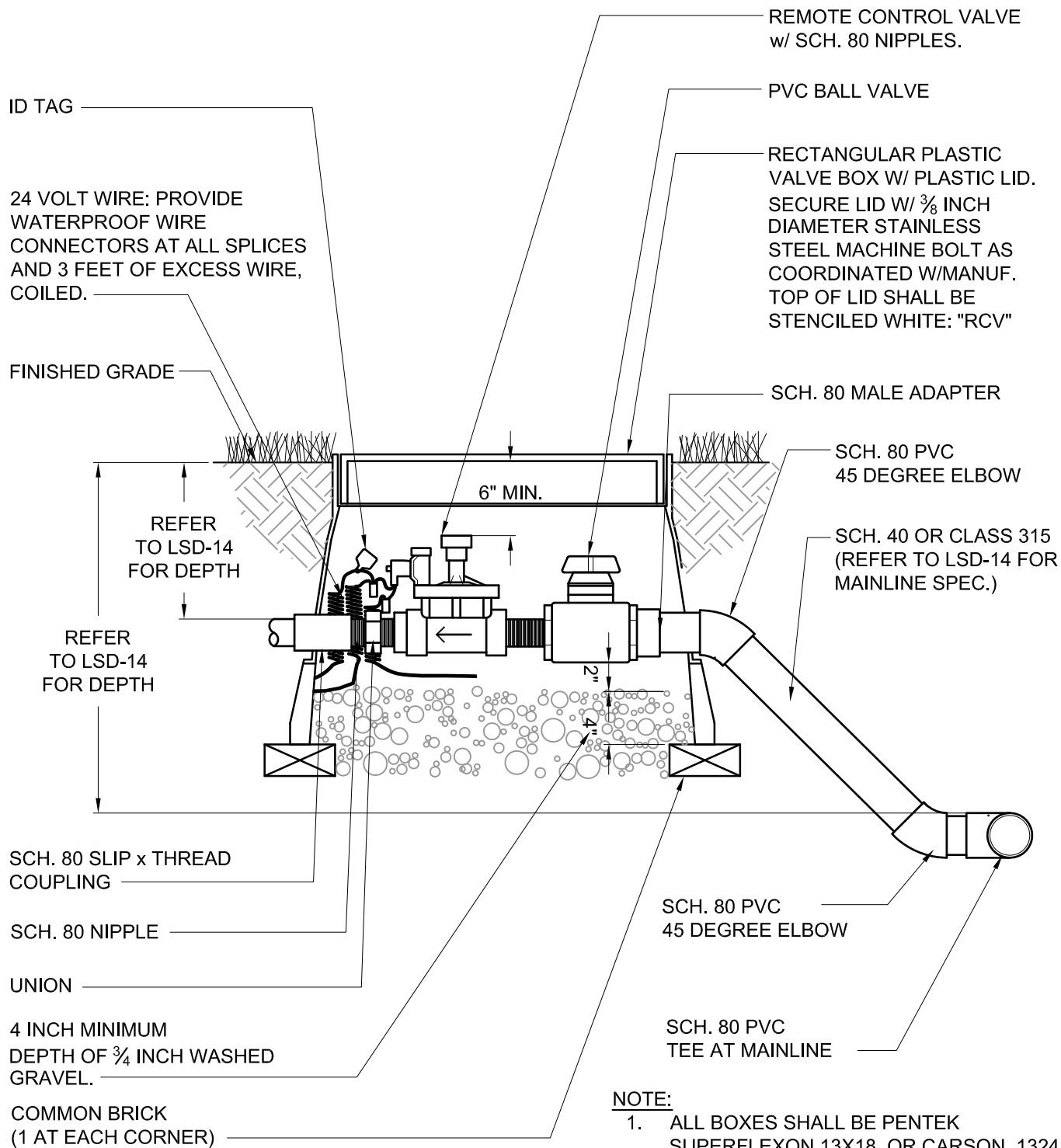
			CITY OF FREMONT STANDARD DETAILS CITY STANDARD IRRIGATION ROTOR OR POP-UP			DATE APPROVED BY CITY COUNCIL 12/13/11	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
APPR	REVISED	DATE	REVISIONS			FILE NO.	SCALE
						LSD-21.DWG	NONE
DRAWN		CHECKED	DATE		DWG NO.		
AK/MM/PM		RER	NOV. 2005		LSD-21	1 of 1	



NOTE:


1. REFER TO CITY STANDARD DETAIL LSD-14 FOR ALL MATERIALS

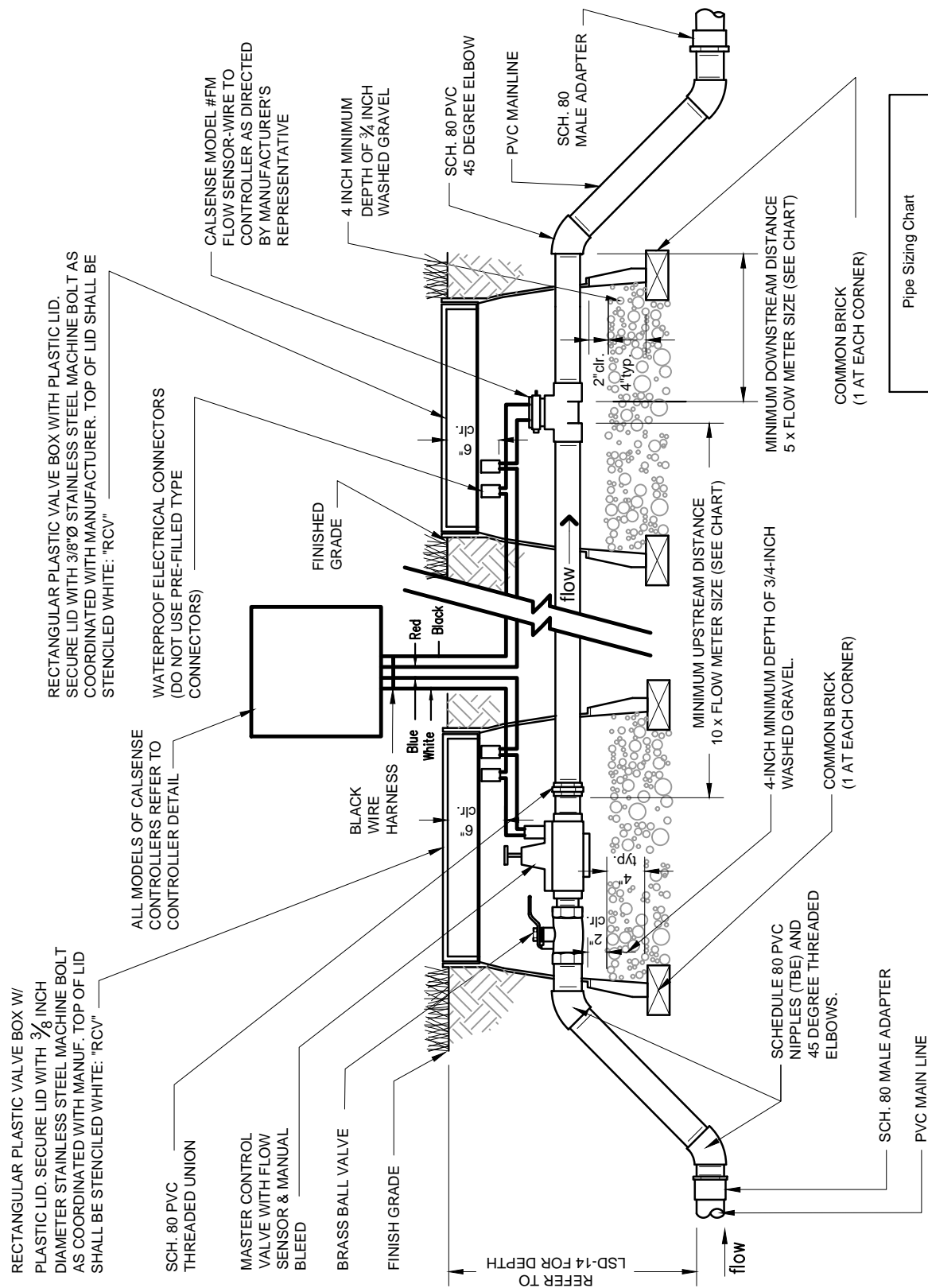
			CITY OF FREMONT STANDARD DETAILS CITY STANDARD IRRIGATION GATE VALVE			DATE APPROVED BY CITY COUNCIL 04/11/06	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
APPR	REVISED	DATE	REVISIONS			FILE NO.	SCALE
						LSD-22.DWG	1-1/2" = 1'-0"
DRAWN		CHECKED		DATE		DWG NO.	
AK/MM/PM		RER		NOV. 2005		LSD-22	1 of 1



NOTE:


1. ALL BOXES SHALL BE PENTEK SUPERFLEXON 13X18, OR CARSON 1324 OR APPROVED EQUAL.
2. REFER TO CITY STANDARD DETAIL LSD-14 FOR ALL MATERIALS.

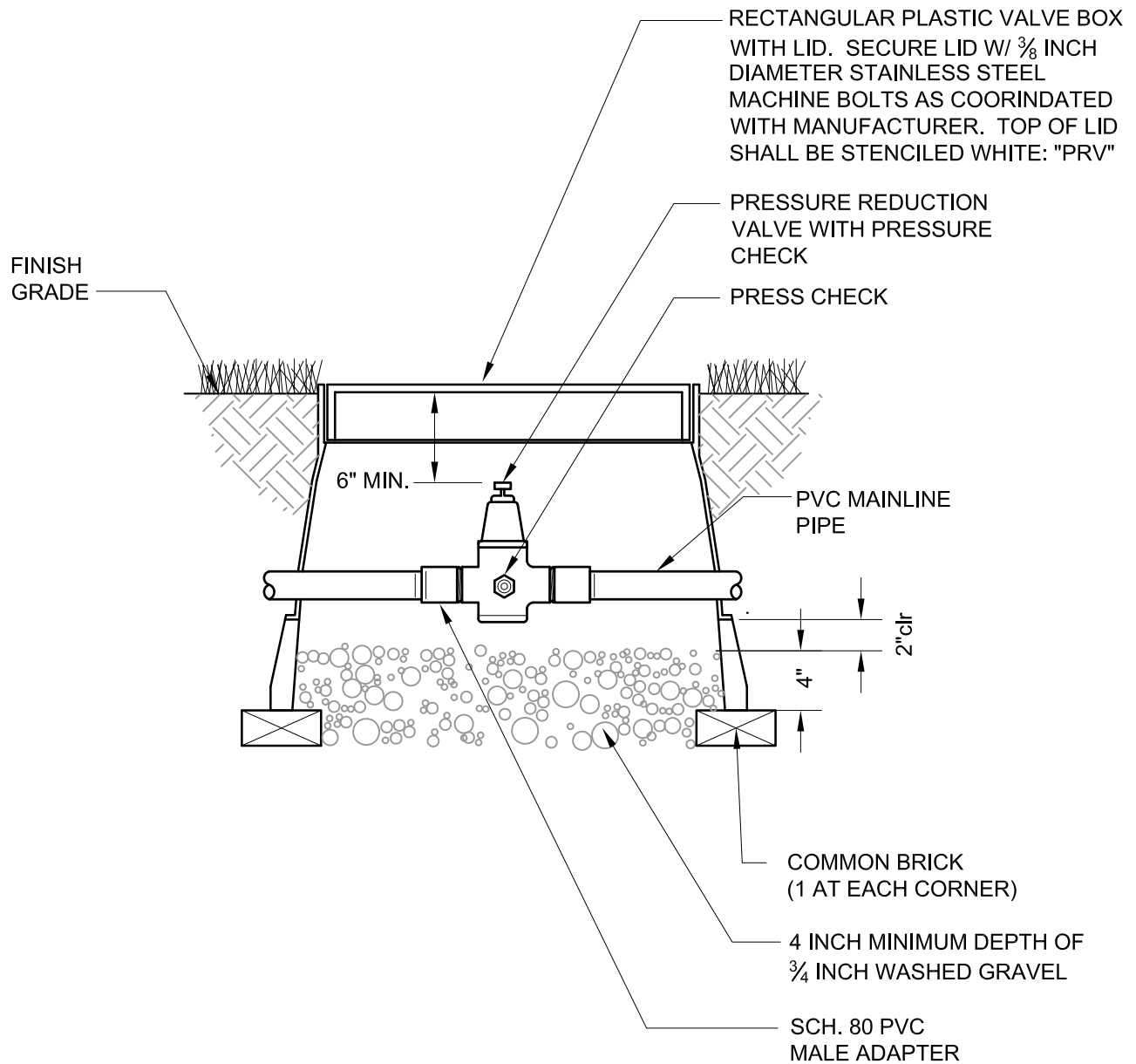
			CITY OF FREMONT STANDARD DETAILS CITY STANDARD IRRIGATION REMOTE CONTROL VALVE W/ GATE VALVE			DATE APPROVED BY CITY COUNCIL 12/13/11	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
APPR	REVISED	DATE					
REVISIONS							
FILE NO.	SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-23.DWG	1" = 1'-0"	AK/MM/PM	RER	NOV. 2005	LSD-23	1 of 1	



NOTES:


APPR	REVISED	DATE
REVISIONS		
FILE NO.	SCALE	
LSD-24.DWG		3/4"

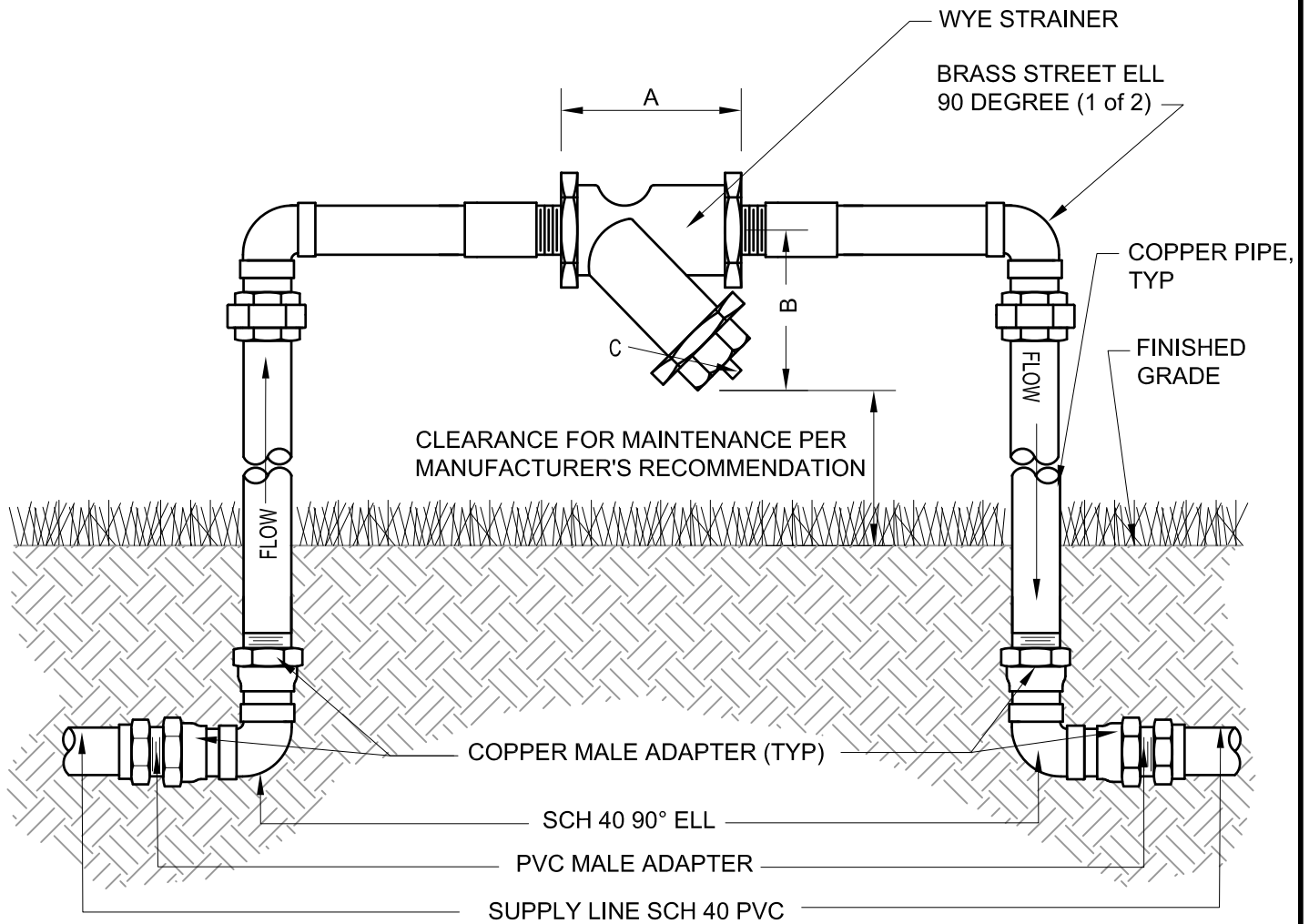
DATE APPROVED BY CITY COUNCIL 04/11/06	
RESOLUTION NO. 2006-31	
	
CITY ENGINEER	
DWG NO. LSD-24	1 of 1



NOTES:

1. PRESSURE REDUCING VALVE BODY SHALL BE IRON; SEAT SHALL BE STAINLESS STEEL; INTEGRAL STRAINER SHALL BE STAINLESS STEEL; STEM SHALL BE BRASS; AND, DISK SHALL BE BRASS.
2. ALL BOXES SHALL BE PENTEK SUPERFLEXON 13X18, CARSON 1324 OR APPROVED EQUAL.
3. REFER TO CITY STANDARD DETAIL LSD-14 FOR ALL MATERIALS

			CITY OF FREMONT STANDARD DETAILS CITY STANDARD IRRIGATION PRESSURE REDUCTION VALVE			DATE APPROVED BY CITY COUNCIL 12/13/11	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
APPR	REVISED	DATE	REVISIONS			FILE NO.	SCALE
						LSD-25.DWG	1" = 1'-0"
DRAWN		CHECKED		DATE		DWG NO.	
AK/MM/PM		RER		NOV. 2005		LSD-25	1 of 1

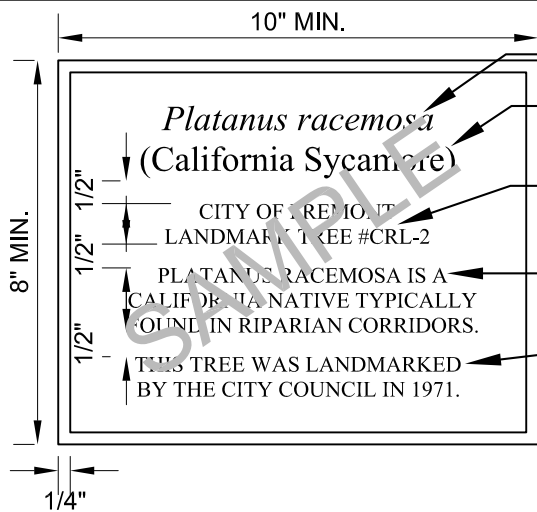


Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	2 3/4"	3"	3 3/4"	4 7/16"	4 15/16"	6 7/8"
B	2 1/4"	2 9/16"	2 3/4"	3 5/8"	3 7/8"	5 1/8"
C	1/4"	3/8"	3/8"	3/4"	3/4"	1"
Wt	.75	1.38	2.13	3.13	4.5	7

NOTES:

1. BODY AND CAP SHALL BE BRONZE ASTM B62; SCREEN SHALL BE 20 MESH STAINLESS STEEL; GASKET SHALL BE NON-ASBESTOS; ENDS SHALL BE THREADED ANSI/ASME B1.20.1
2. WORKING PRESSURE SHALL BE NON-SHOCK, 200 PSI @ 150 DEGREES
3. REFER TO CITY STANDARD DETAIL LSD-14 FOR ALL MATERIALS

			CITY OF FREMONT STANDARD DETAILS CITY STANDARD IRRIGATION WYE STRAINER			DATE APPROVED BY CITY COUNCIL 12/13/11	
						RESOLUTION NO. 2006-31	
						 CITY ENGINEER	
APPR	REVISED	DATE					
REVISIONS							
FILE NO.	SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-26.DWG	1" = 1'-0"	AK/MM/PM	RER	NOV. 2005	LSD-26	1 of 1	



SCIENTIFIC NAME OF TREE, 1/2" LETTERS, ITALICIZED

COMMON NAME OF TREE IN PARENTHESES, 1/2" LETTERS

CITY OF FREMONT LANDMARK TREE NUMBER, 5/16" LETTERS, CAPITALIZED

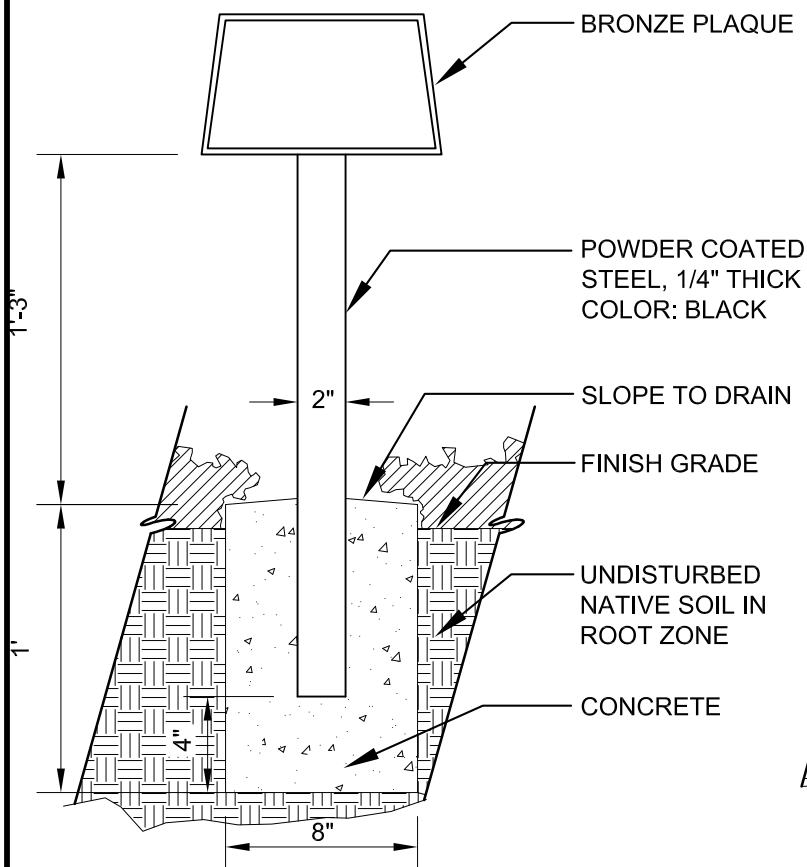
TREE DESCRIPTION, 5/16" LETTERS, CAPITALIZED. DESCRIPTION TO BE APPROVED BY CITY LANDSCAPE ARCHITECT

STANDARD TEXT, 5/16" LETTERS, CAPITALIZED

NOTES:

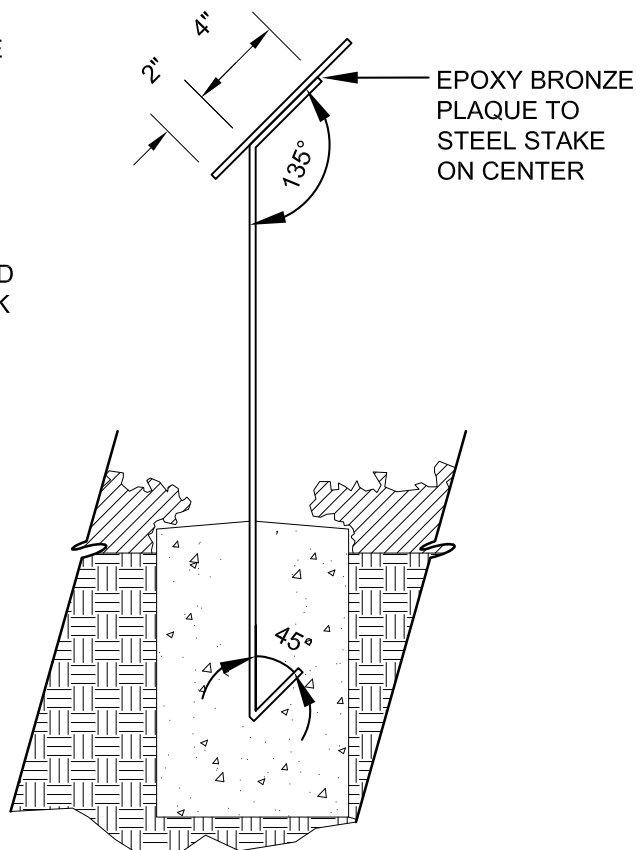
1. ALL TEXT TO BE TIMES NEW ROMAN, CENTERED ON PLAQUE.
2. BACKGROUND COLOR SHALL BE DARK OXIDE (DARK BROWN).
3. BACKGROUND TEXTURE SHALL BE LEATHERETTE.
4. BORDER SHALL BE SINGLE LINE WITH NO BEVEL.
5. LETTER AND WORD SPACING AS SHOWN.
6. SIZE OF PLAQUE MAY VARY ACCORDING TO VARYING WIDTH OF SPECIES NAME.
7. ANY DEVIATIONS SHALL BE APPROVED BY THE CITY LANDSCAPE ARCHITECT PRIOR TO FABRICATION.

BRONZE PLAQUE
SCALE: 3"=1'-0"



FRONT VIEW

SCALE: 1 1/2"=1'-0"



SIDE VIEW

SCALE: 1 1/2"=1'-0"

CITY OF FREMONT
STANDARD DETAILS
CITY STANDARD
LANDMARK TREE PLAQUE

DATE APPROVED BY CITY COUNCIL
12/13/11

RESOLUTION NO. 2006-31

Ham Hughes

CITY ENGINEER

	Council Revision	12/13/11
APPR	REVISED	DATE
REVISIONS		
FILE NO.	SCALE	DRAWN
LSD-27.DWG	AS SHOWN	TB

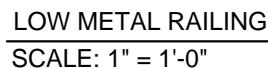
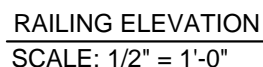
DRAWN

CHECKED

DATE

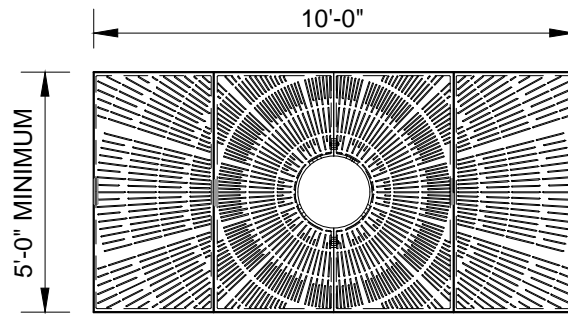
DWG NO.

1 OF 1



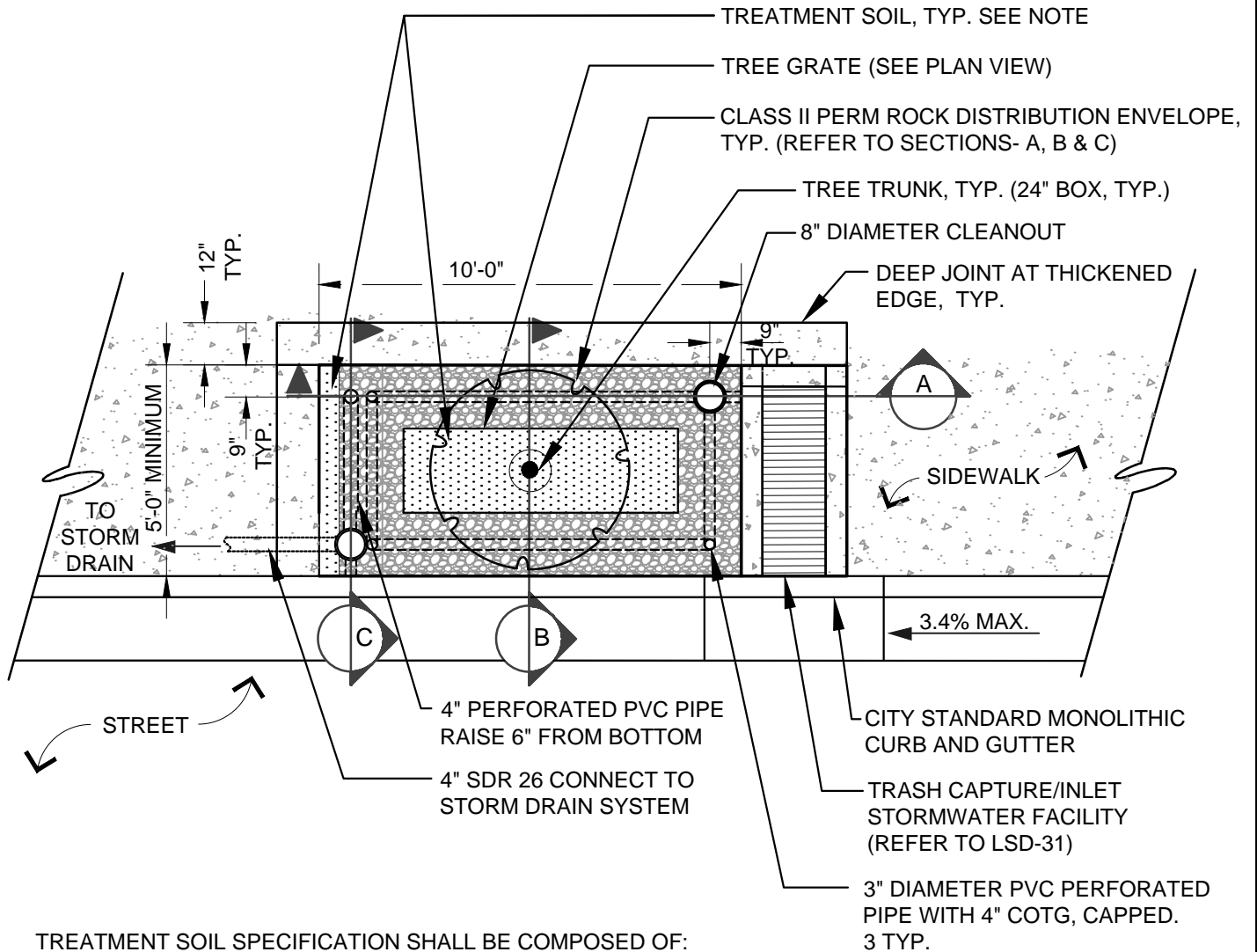
NOTE:
ALL MEMBERS SOLID STEEL RAILING AND TUBULAR STEEL

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>LANDMARK TREE RAILING</div>				DATE APPROVED BY CITY COUNCIL 12/13/11	
							RESOLUTION NO. 2006-31	
							<div>Nam Hughes</div>	
	Council Revision	12/13/11						
APPR	REVISED	DATE						
REVISIONS			CITY ENGINEER					
FILE NO. LSD-28.DWG		SCALE VARIES	DRAWN TB	CHECKED RER	DATE DEC. 2011	DWG NO. LSD - 28	1 of 1	



NOTE:
NEENAH TREE GRATE (WITH
EXTENSIONS) PER LSD-2 OR
APPROVED EQUAL

PLAN VIEW - TREE GRATE



TREATMENT SOIL SPECIFICATION SHALL BE COMPOSED OF:
60% ASTM C-33 SAND
30% USCC STA CERTIFIED COMPOST
10% SMALL WOOD CHIPS

CITY OF FREMONT STANDARD DETAILS CITY STANDARD STORMWATER TREETWELL PLAN VIEW

DATE APPROVED BY CITY COUNCIL
12/13/11

RESOLUTION NO. 2006-31

Ham Hughes

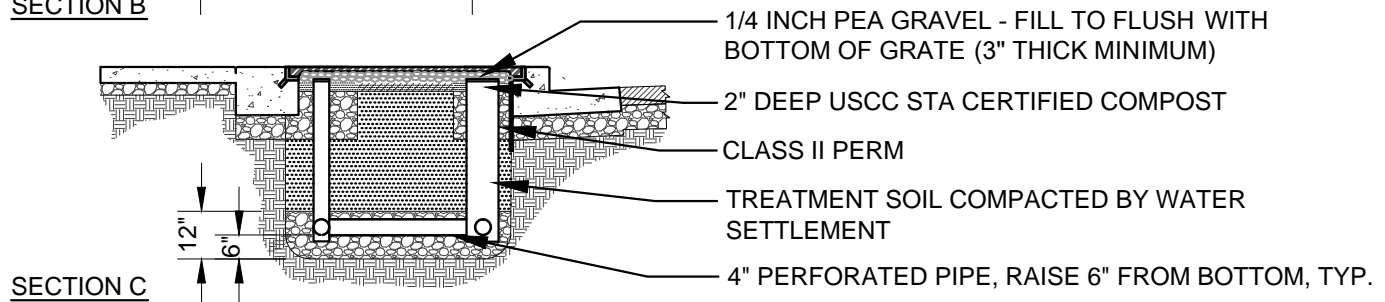
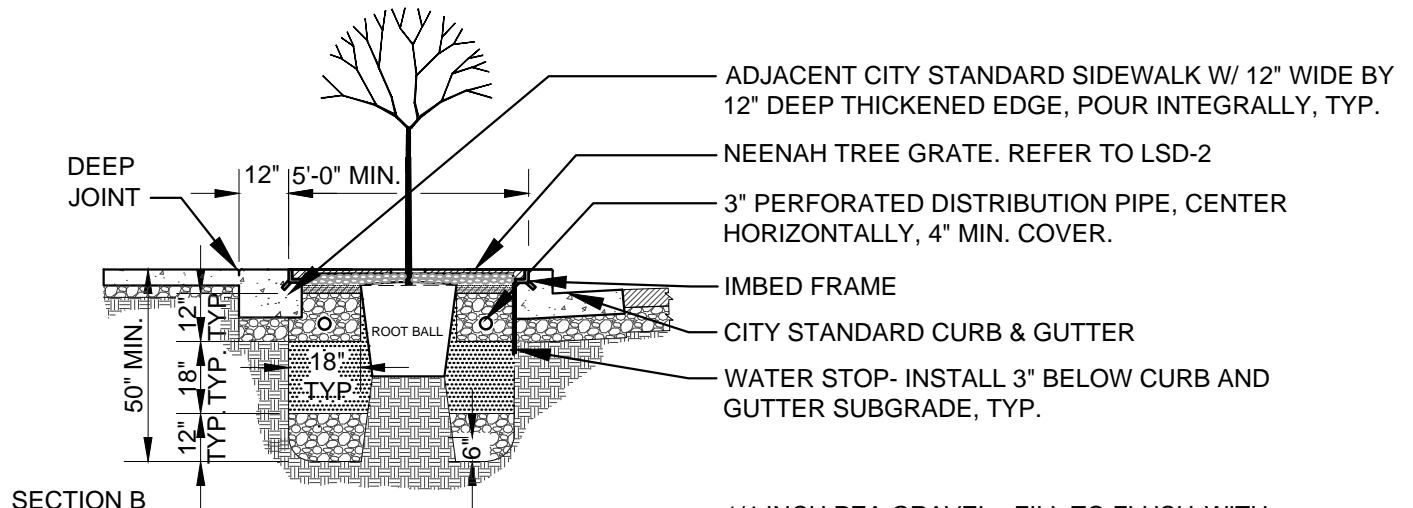
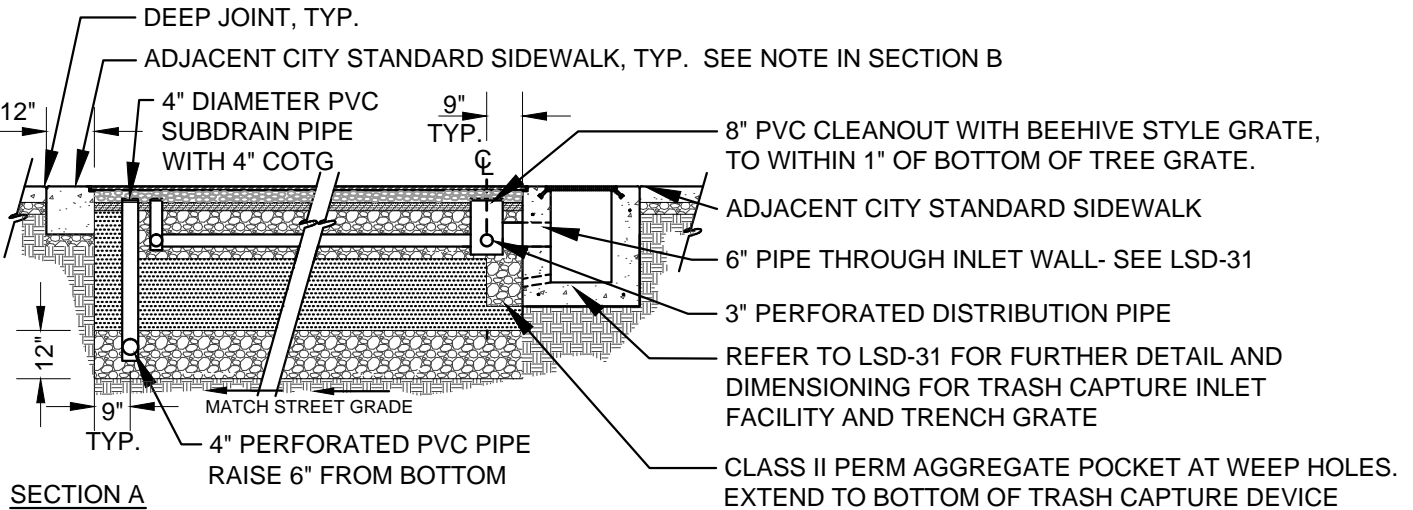
CITY ENGINEER


	Council Revision	12/13/11
APPR	REVISED	DATE
REVISIONS		

FILE NO. LSD-29.DWG	SCALE 1/4" = 1'-0"	DRAWN EL/TB/CC	CHECKED RER	DATE DEC. 2011	DWG NO. LSD-29	1 OF 2
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SIZING INFORMATION:

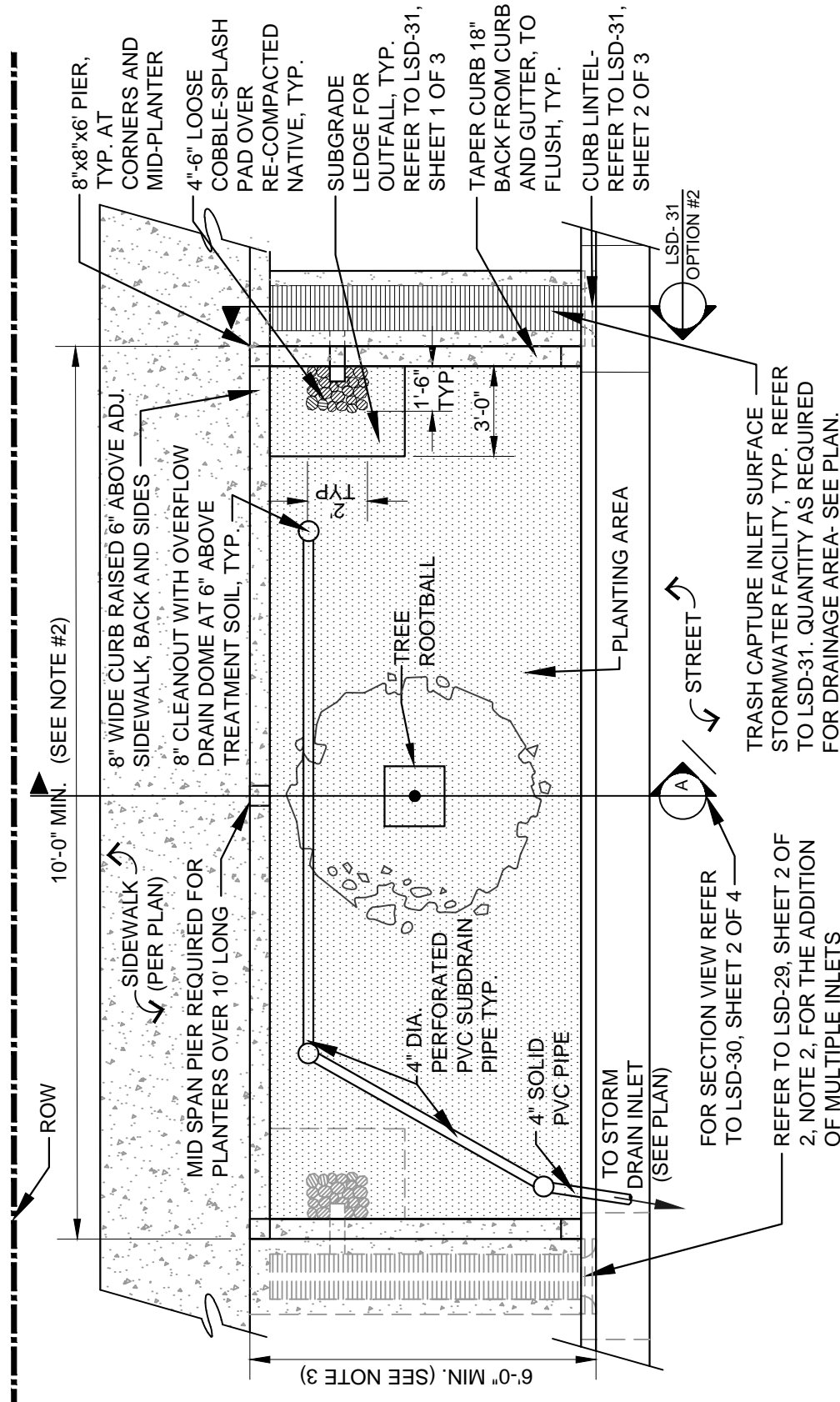
1. THE MAXIMUM ALLOWABLE DRAINAGE AREA FOR THIS TREEWELL AS SHOWN (10' x 5') SHALL BE 1,250 SQ. FT. TREEWELL HAS BEEN SIZED USING THE COMBINED FLOW AND VOLUME METHODOLOGY AS DETAILED IN THE ACCWP C.3 STORMWATER TECHNICAL MANUAL. ANY DEVIATION FROM THIS SIZE (10' x 5') WOULD REQUIRE FLOW-VOLUME CALCULATIONS. SUBSURFACE TREEWELL TREATMENT DEVICES WILL NOT BE ACCEPTED USING SIMPLIFIED SIZING CRITERIA OF 4%.
2. THE CURB INLET OPENING OF 15" AS SHOWN IS SUFFICIENT TO CAPTURE 100% OF THE TREATMENT RUNOFF FROM THE MAXIMUM DRAINAGE AREA (1,250 SQ.FT. OF IMPERVIOUS AREA) PERTINENT TO THIS TREEWELL SIZE. THE LENGTH OF CURB OPENING REQUIRED FOR 100% CAPTURE IS DEPENDENT ON THE GUTTER SLOPE (FOR TREEWELLS INSTALLED AT GRADE). STREETS GREATER THAN 3.4% SHALL REQUIRE LONGER OR MULTIPLE CURB OPENINGS BASED ON INLET CAPTURE CALCULATIONS.
3. FOR ADDITIONAL PLANTING AND IRRIGATION REFER TO LSD-2 REQUIREMENTS. TREES MUST BE IRRIGATED.



			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>STORMWATER TREEWELL</div> <div>SECTIONS</div>				DATE APPROVED BY CITY COUNCIL 12/13/11	
							RESOLUTION NO. 2006-31	
							<div></div>	
	Council Revision	12/13/11						
APPR	REVISED	DATE						
REVISIONS							CITY ENGINEER	
FILE NO. LSD-29.DWG		SCALE 1/4=1'-0"	DRAWN MAM/TB/CC	CHECKED RER	DATE DEC. 2011	DWG NO. LSD-29	2 OF 2	

SIZING INFORMATION:

- A. SIZE TREEWELL FILTER TO EQUAL 4% OF THE DRAINAGE AREA ENTERING PLANTER. REFER TO ACCWP C.3 STORMWATER TECHNICAL MANUAL.
 B. FOR ADDITIONAL PLANTING AND IRRIGATION REFER TO LSD-2 REQUIREMENTS. TREES MUST BE IRRIGATED.



NOTES:

- USE NDS DOME ATRIUM GRATE FOR OVERFLOW DRAINS, OR APPROVED EQUAL. COLOR: BLACK
- DIMENSIONS VARY DEPENDING ON SIZE OF DRAINAGE AREA, BUT NOT LESS THAN 5'-0" BY 10'-0"
- SEE SHEET 3 OF 4 FOR ALTERNATE MONOLITHIC SIDEWALK DESIGN

**CITY OF FREMONT
 STANDARD DETAILS
 CITY STANDARD
 STORMWATER PLANTER
 PLAN VIEW**

DATE APPROVED BY CITY COUNCIL
 12/13/11

RESOLUTION NO. 2006-31

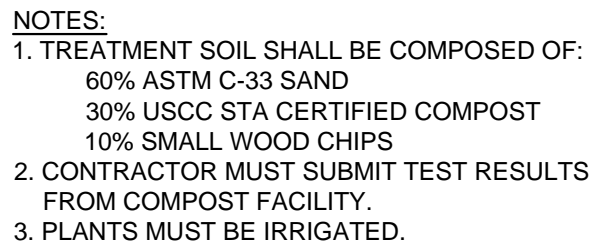
Ham Hughes

CITY ENGINEER

DWG NO. LSD-30

1 OF 4

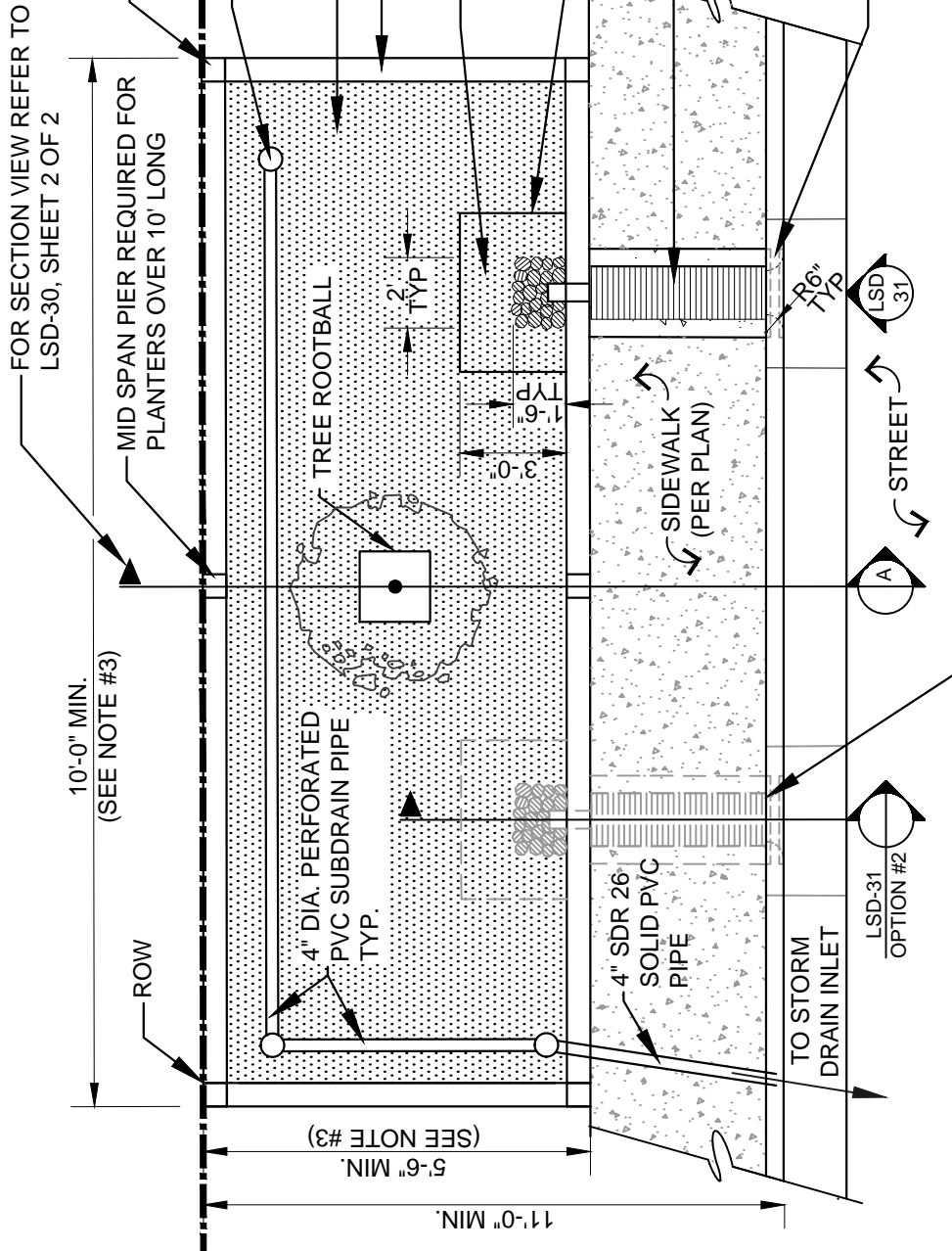
FILE NO.	SCALE	DRAWN	CHECKED	DATE
LSD-30.DWG	3/16" = 1'-0"	MM	RER	DEC. 2011
APPR	REVISIONS	DATE		
	Council Revision	12/13/11		
	REVISOR	DATE		



			<div>CITY OF FREMONT STANDARD DETAILS CITY STANDARD STORMWATER PLANTER SECTIONS</div>				DATE APPROVED BY CITY COUNCIL 12/13/11	
							RESOLUTION NO. 2006-31	
							<div>Nam Hughes</div> <div>CITY ENGINEER</div>	
	Council Revision	12/13/11						
APPR	REVISED	DATE						
REVISIONS								
FILE NO.		SCALE	DRAWN	CHECKED	DATE	DWG NO.		
LSD-30.DWG		N.T.S.	MM/CC	RER	DEC. 2011	LSD-30	2 OF 4	

SIZING INFORMATION:

- A. SIZE TREEWELL FILTER TO EQUAL 4% OF THE DRAINAGE AREA ENTERING PLANTER.
REFER TO ACWP C-3 STORMWATER TECHNICAL MANUAL.
B. FOR ADDITIONAL PLANTING AND IRRIGATION REFER TO LSD-2 REQUIREMENTS.
TREES MUST BE IRRIGATED.



NOTES:

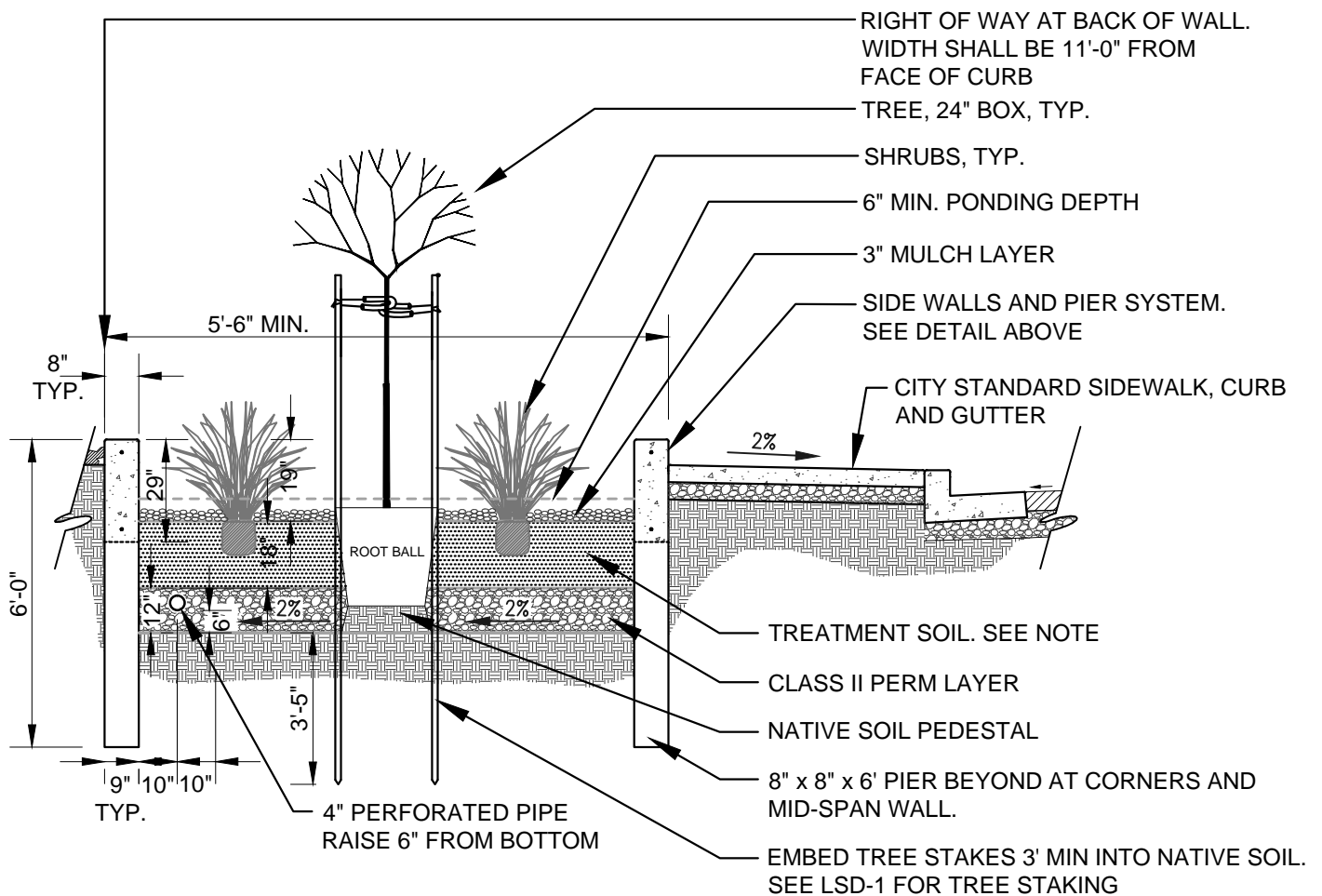
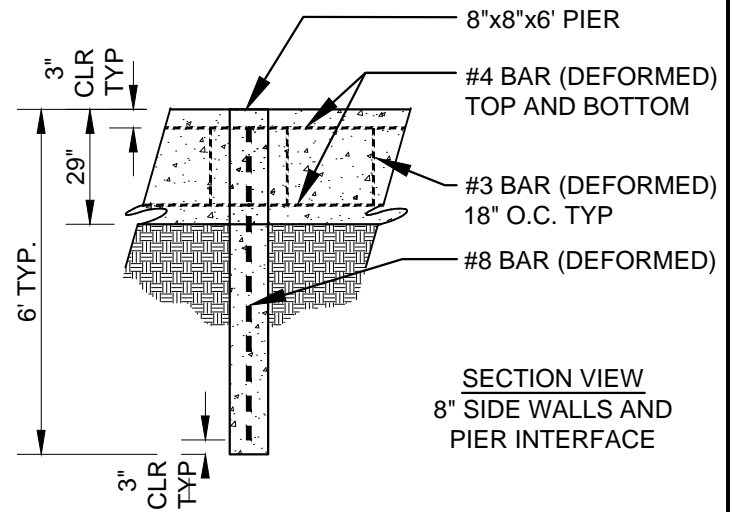
1. USE NDS DOME ATRIUM GRATE FOR OVERFLOW DRAINS, OR APPROVED EQUAL. COLOR: BLACK
2. DIMENSIONS VARY DEPENDING ON SIZE OF DRAINAGE AREA, 5'-0" BY 10'-0" MIN.
3. THIS IS AN ALTERNATE DESIGN FROM THE RESIDENTIAL STANDARD AND IS FOR RETROFIT OR MONOLITHIC SITUATIONS ONLY, AS APPROVED BY THE CITY ENGINEER.

FILE NO.	LSD-30.DWG	SCALE	3/16" = 1'-0"	DRAWN	MM/TB/CC	CHECKED	RER	DATE	DEC. 2011	DWG NO.	LSD-30	3 OF 4
APPR	REVIS	DATE	12/13/11	Council Revision	12/13/11	DATE						
REVISIONS												


CITY OF FREMONT
STANDARD DETAILS
CITY STANDARD
STORMWATER PLANTER
PLAN VIEW - ALTERNATE

DATE APPROVED BY CITY COUNCIL	12/13/11
RESOLUTION NO.	2006-31
CITY ENGINEER	<i>Ham Hughes</i>

1. TREATMENT SOIL SHALL BE COMPOSED OF:
60% ASTM C-33 SAND
30% USCC STA CERTIFIED COMPOST (SEE NOTE 2)
10% SMALL WOOD CHIPS
2. CONTRACTOR SHALL SUBMIT TEST RESULTS FROM COMPOST FACILITY.
3. PLANTS MUST BE IRRIGATED.
4. THIS IS AN ALTERNATE DESIGN FROM THE RESIDENTIAL STANDARD AND IS FOR RETROFIT OR MONOLITHIC SITUATIONS ONLY, AS APPROVED BY THE CITY ENGINEER.



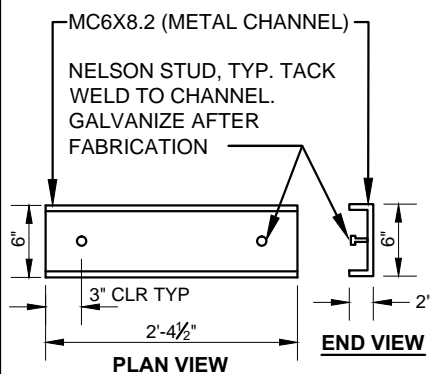
SECTION A

			CITY OF FREMONT STANDARD DETAILS CITY STANDARD STORMWATER PLANTER SECTIONS-ALTERNATE				DATE APPROVED BY CITY COUNCIL 12/13/11		
							RESOLUTION NO. 2006-31		
									
	Council Revision	12/13/11							
APPR	REVISED	DATE							
REVISIONS			CITY ENGINEER						
FILE NO. LSD-30.DWG		SCALE N.T.S.		DRAWN PN/TB/CC	CHECKED RER	DATE DEC. 2011	DWG NO. LSD-30		4 OF 4

DWG NO.	
LSD-31	1 OF 3

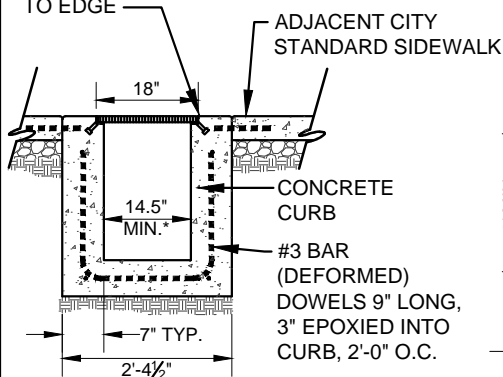
1. * REFER TO PLANS FOR MINIMUM OPENING WIDTH. VARIABILITY OF MINIMUM OPENING WIDTH IS SUBJECT TO REQUIREMENTS OF DRAINAGE AREA. REFER TO NOTES 1 AND 2 ON LSD-29, SHEET 2 OF 2.

2. DURING CONSTRUCTION RAIN EVENTS, TRASH CAPTURE DEVICE OPENING SHALL BE PROTECTED TO PREVENT WATER ENTRY UNTIL DEVICE IS APPROVED FOR USE BY PROJECT LANDSCAPE ARCHITECT.
3. REFER TO LSD 31, SHEET 1 OF 3 FOR WEEP HOLES QUANTITY AND DETAIL.

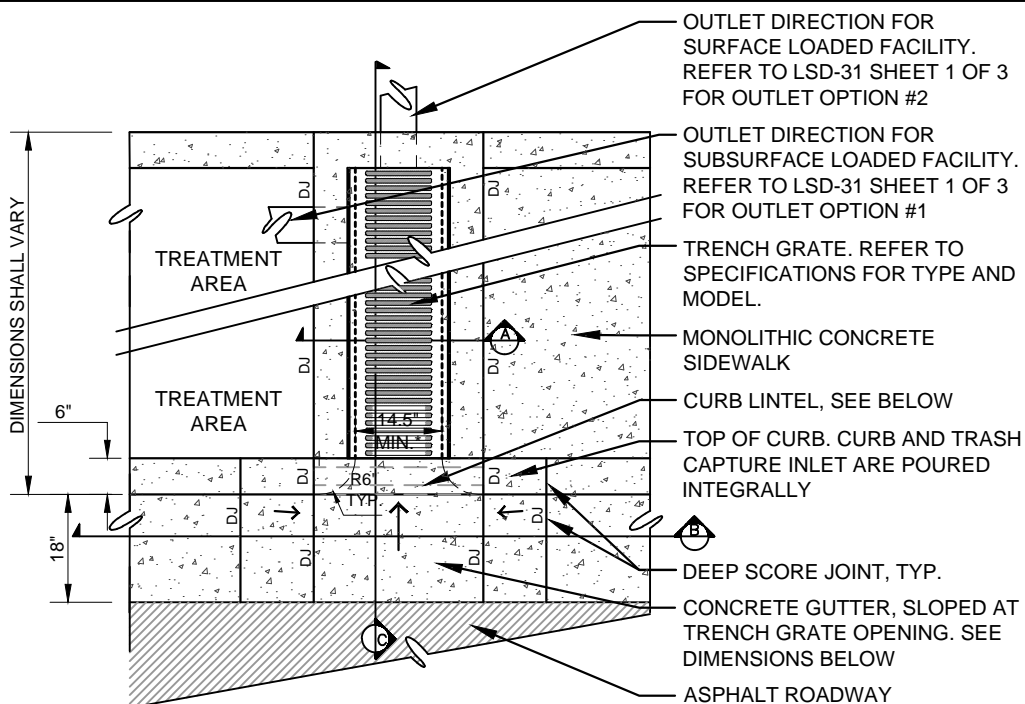


CURB LINTEL ENLARGEMENT
SCALE: 3/4"= 1'-0"

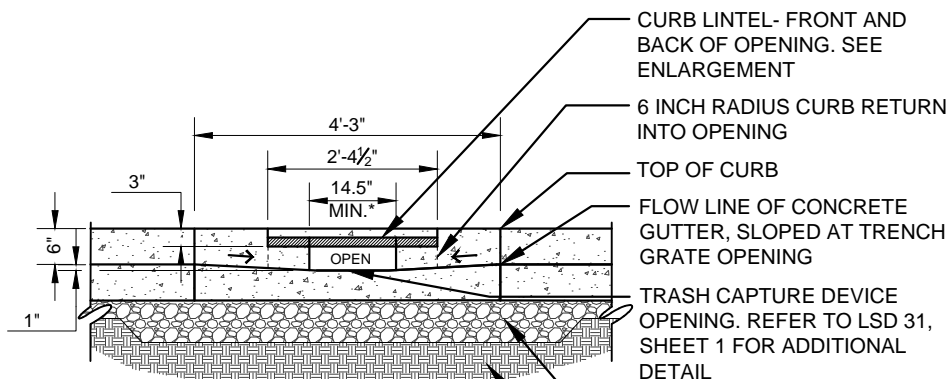
TRENCH GRATE AND INTEGRATED
FRAME. FRAME SHALL BE 1½" TO
1¾" ANGLE IRON EMBEDDED INTO
TRASH CAPTURE CURB, AND
DIMENSIONED FROM OUTSIDE EDGE
TO EDGE



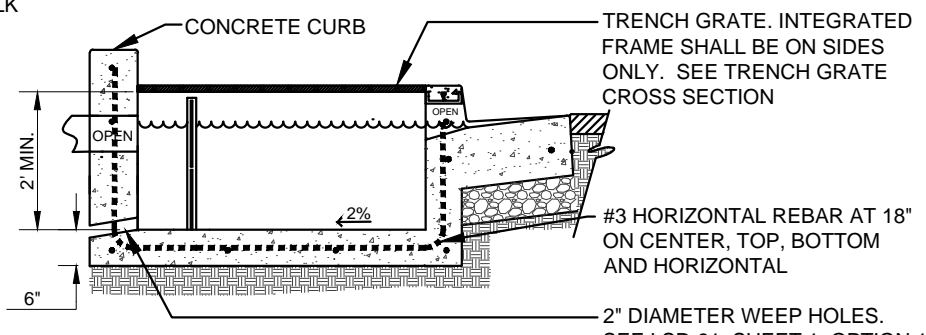
SECTION A
TRENCH GRATE AND CURB CONNECTION



PLAN VIEW
TRASH CAPTURE INLET AND GRATE




SECTION B
TRENCH GRATE INLET ENLARGEMENT

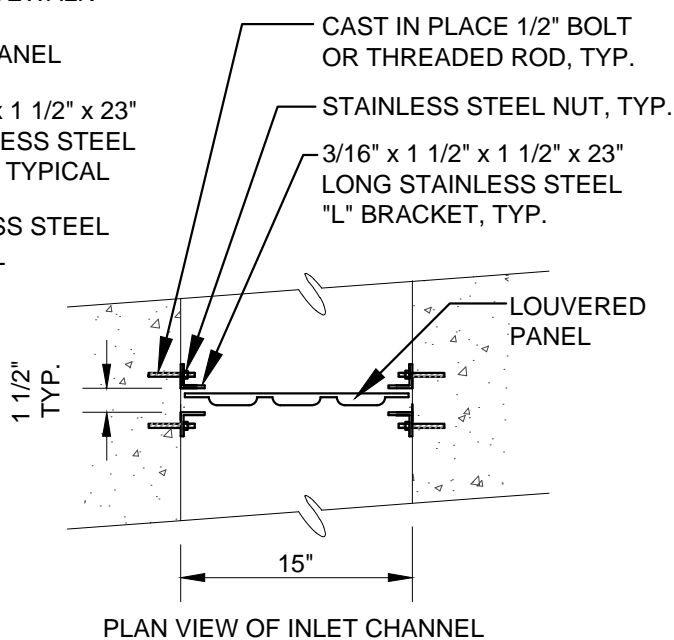
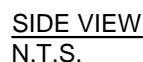


SECTION C- SIDE VIEW
SURFACE LOADED TRASH CAPTURE INLET

	Council Revision	12/13/11
APPR	REVISED	DATE
REVISIONS		
FILE NO.		SCALE
LSD-31.DWG		3/8"

CITY OF FREMONT
STANDARD DETAILS
CITY STANDARD
STORMWATER TRASH
CAPTURE INLET

DATE APPROVED BY CITY COUNCIL 12/13/11	
RESOLUTION NO. 2006-31	
	
CITY ENGINEER	
DWG NO. LSD-31	2 OF 3



14 1/2"

1 1/2"

1 1/2"

1 1/2"

1' - 4"

11 1/2"

2 1/4"

6"

2 1/4"

1/4" THICK STAINLESS STEEL LOUVERED PANEL

LOUVER DIMENSIONS:
 3" L x 1/2" H x 1/2" D
 5mm LOUVER OPENING
 1/2" RADIUS ENDS
 1/2" LOUVER SPACING (VERTICAL)
 1/4" LOUVER COLUMN SPACING

1/4" TYP

SOLID 1/4" STAINLESS STEEL PLATE

FRONT VIEW

1. LOUVERED PANEL MINIMUM DIMENSION: 22"H x 14 1/2"W x 1/4"T. PANEL SIZES SHALL VARY DEPENDING UPON FACILITY REQUIREMENTS.
2. FIELD VERIFY AND MAINTAIN 1" CLEAR FROM BOTTOM OF TRENCH GRATE.

			<div>CITY OF FREMONT</div> <div>STANDARD DETAILS</div> <div>CITY STANDARD</div> <div>STORMWATER TRASH</div> <div>CAPTURE INLET</div>				DATE APPROVED BY CITY COUNCIL 12/13/11	
							RESOLUTION NO. 2006-31	
							<div>Nam Hughes</div>	
	Council Revision	12/13/11						
APPR	REVISED	DATE						
REVISIONS			CITY ENGINEER					
FILE NO. LSD-31.DWG		SCALE 1" = 1'-0"	DRAWN MAM/CC	CHECKED RER/MM	DATE NOV. 2011	DWG NO. LSD-31	3 OF 3	